

# SEDONA AIRPORT

MASTER PLAN  
(1997-2017)

## APPENDIX B- DOCUMENT SUPPORT

# INVENTORY

# 1997 Wind Observation for Sedona Airport

HOURLY OBSERVATIONS OF WIND SPEED (KNOTS)										41
	0-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	OVER	TOTAL
1	122	334	704	162	7	0	0	0	0	1329
2	139	287	794	411	18	1	0	0	0	1650
3	119	220	588	511	22	1	0	0	0	1461
4	98	113	270	201	11	3	0	0	0	696
5	74	72	113	59	5	1	0	0	0	324
6	91	82	125	53	5	1	0	0	0	357
7	105	70	63	49	1	0	0	0	0	288
8	109	58	41	27	1	0	0	0	0	236
9	108	37	21	151	1	0	0	0	0	318
10	123	40	16	12	1	0	0	0	0	192
11	143	70	23	13	3	2	0	0	0	254
12	160	130	61	29	6	2	0	0	0	388
13	149	216	126	75	13	3	0	0	0	582
14	155	245	199	143	22	4	0	0	0	768
15	182	258	242	179	30	6	2	0	0	899
16	131	269	221	161	27	4	0	0	0	813
17	152	247	245	203	53	5	0	0	0	905
18	140	189	172	135	41	3	0	0	0	680
19	107	141	123	109	34	6	0	0	0	520
20	87	124	67	47	5	1	0	0	0	331
21	78	77	55	19	0	0	0	0	0	229
22	83	64	36	151	1	0	0	0	0	335
23	89	86	36	11	0	0	0	0	0	222
24	76	48	30	12	1	0	0	0	0	167
25	62	49	30	19	1	0	0	0	0	161
26	68	55	43	30	6	0	0	0	0	202
27	64	39	31	21	2	1	0	0	0	158
28	37	36	24	12	3	0	0	0	0	112
29	41	28	16	17	1	3	0	0	0	106
30	47	23	18	10	2	0	0	1	0	101
31	33	12	10	16	1	2	0	0	0	74
32	43	12	9	9	1	0	0	0	0	74
33	37	15	11	8	3	2	0	0	0	76
34	35	20	17	2	2	0	0	0	0	86
35	68	26	17	10	0	1	0	0	0	122
36	46	39	33	6	2	0	0	0	0	126
0	104	71	51	8	0	0	0	0	0	234
<b>TOTAL:</b>	<b>3,505</b>	<b>3,902</b>	<b>4,681</b>	<b>3,101</b>	<b>332</b>	<b>52</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>15,576</b>

REFERENCE: Appendix 1 of AC 150/5300-13, Airport Design, including Changes 1 through 4.

Source: 1997 AWOS (Automated Weather Observation System) DATA

## FORECAST

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# **Sedona Airport Master Plan**

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Forecasting Guidelines, Assumptions and  
Methodology



**Stantec**



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# **Sedona Airport Master Plan**

## **Aviation Activity Forecasts**

### **Introduction**

The aviation demand forecast provides a basis for determining the type, size, and timing of airport facility requirements. More specifically, the updated forecast prepared for this Master Plan Update will provide the means to:

- Compare the level of aviation activity anticipated to the existing capacity of the airport facilities such as hangars, aircraft apron area, etc.
- Determine the required size and timing of new airport facilities to ensure adequate capacity to meet forecast demand.
- The financial feasibility of alternative airport development options to be evaluated.

Aviation demand for Sedona is represented in terms of based aircraft and operation levels. Activity forecasts presented for Sedona should be used only as guidelines for the formation of a long-term development program for the airport. Implementation of recommended future facilities should take place upon reaching specific aviation demand thresholds, as determined in the facility requirement element, rather than on an inflexible schedule based solely on these forecasts.

The size and character of an airport as well as industry trend for similar type airports will typically dictate how sensitive the aviation demand forecasts are to changes in the forecasting model input. For Sedona, changes to forecasting variables (e.g. population) will not dramatically change the resulting demand levels to the extent that airport facility requirements will be significantly different. In other words, varying the population base will not significantly change the based aircraft demand and the resulting facility requirements derived from that demand. This is presented later in Table 2.

This paper serves to summarize the preliminary guidelines and assumptions, forecasting methodology, and aviation demand forecasts for the Sedona Airport Master Plan. The primary objective of this paper is to recap the forecasting effort and address the questions regarding the Airport Service Area population base used in the forecasts.

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## **Guidelines and Assumptions**

The following are essential guidelines and assumptions in the Sedona Airport master planning process:

- The goal of the Master Plan is to design a developmental program that provides the means for Sedona Airport to continue its role as part of a highly integrated transportation system that enables planes and people to move safely and efficiently throughout the state and the country.
- This Master Plan will address future facilities needs while recognizing the potential of other airports in the area and state.
- Through representatives in the Planning Advisory Committee and the public, careful consideration will be given to the needs of the neighboring community and existing transportation systems which could be impacted by the new Airport Master Plan.

The following are four primary tasks completed in determining current and future aviation activity at Sedona Airport:

- 1) Consideration of current socioeconomic trends including the identification of an airport service area
- 2) Evaluation of available data on historical and current activity
- 3) Testing of forecasting models
- 4) Review of existing federal, state and local forecasts

These tasks overlap rather than fall in an independent sequential process. The remaining sections presented here address the important questions asked during the last Sedona Airport Master Plan PAC meeting with respect to forecasting.

## **Forecasting Methodology**

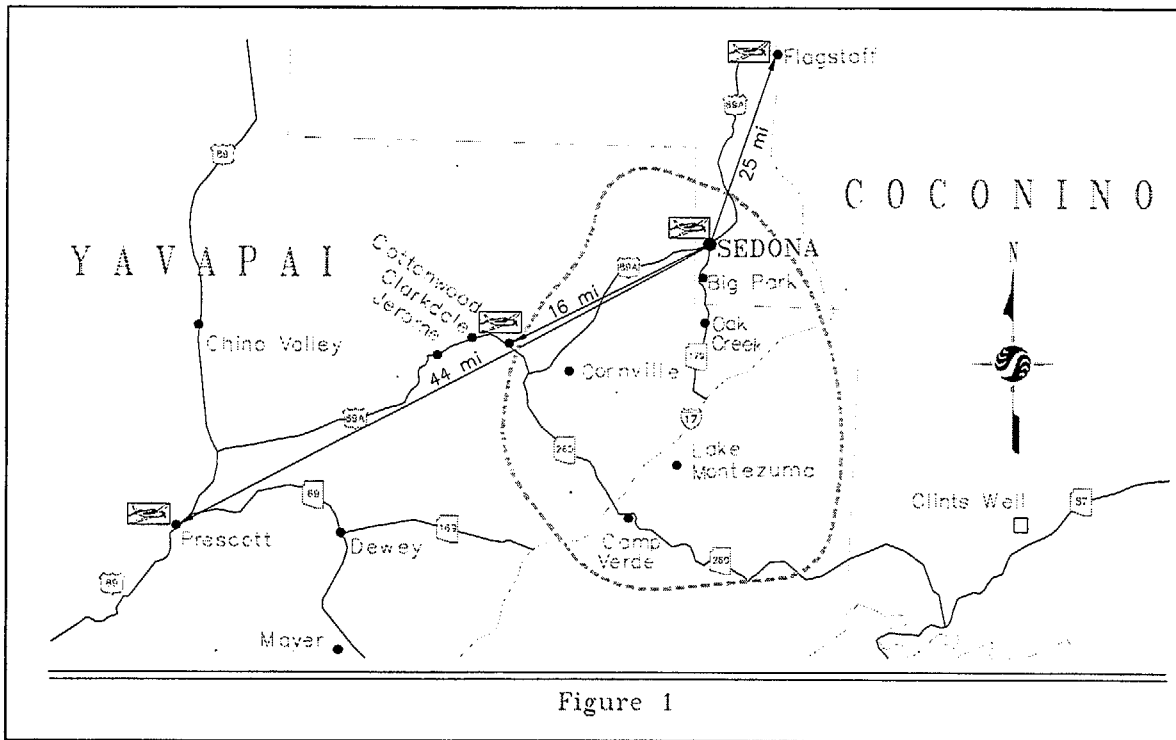
### **Forecasting Approach**

The following represents the basic steps in the forecasting effort:

- 1) Establish the Airport Service Area
- 2) Review and assess historical aviation demand and socioeconomic data, as available.
- 3) Identify a relationship/correlation with based aircraft and one or more socioeconomic variables. This resulted in the identification of a relationship between based aircraft and population (ratio of based aircraft per 1000 population). Population data for the City of Sedona, Yavapai and Coconino Counties came from the latest Arizona Department of Economic Security projections (May 1997).
- 4) Review population projections from Department of Economic Security (DES) and compare with the Sedona Community Plan projections.
- 5) Apply based aircraft per 1,000 population ratio to the population projections to establish forecasts for Sedona Airport based aircraft over the planning period (20 years).

## Establishing the Sedona Airport Service Area

The scope of the Master Plan limits data collection to a physical area designated as the Airport Service Area. For Sedona, this Service Area is for general aviation. From all points within the Service Area, Sedona Airport is assumed to be the facility most often used for air travel. A map of the Sedona General Aviation Service Area is shown in Figure 1.



The General Aviation Service Area boundaries have been defined with respect to time and convenience involved to reach a facility near Sedona Airport. Factors considered in determining time and convenience included input from PAC members, mileage, prevailing highway speeds, traffic flow and attractions in the area. Furthermore, according to the National Plan of Integrated Airport Systems (NPIAS), they define a general aviation service area as "reasonable access" to general aviation facilities in 30 minutes **surface travel time** (also commonly call door-to-door travel time).

The Sedona Airport service area extends beyond the boundary of the City of Sedona. The service area extends well into the rural areas of the county. There is also some overlap of service areas with other airports in the region, due to the availability of other services at these airports. Therefore, it is important to note that the population base identified is not necessarily tied only to the Sedona Airport. It should also be recognized that in addition to the resident population of Sedona, there is a seasonal Sedona population and rural population beyond Sedona that is also served by the Sedona Airport. The rural population that lies outside of Sedona is contained in parts of both Yavapai and Coconino Counties.

Sedona's seasonal population consists largely of residents from the Phoenix and Tucson areas that have summer homes in Sedona. These seasonal residents not only have an impact on the local economy; they also contribute to the need for aviation facilities and services.

**Updating the Service Area based on comments from the October 6<sup>th</sup> PAC Meeting and the Sedona Community Plan:**

- The seasonal population was estimated using a “seasonal” vacancy rate of 89.7% of vacant units and two persons per household (Economic Base Study, Sedona Community Plan, Sunregion Associates, Inc. Pg. 3-3). This seasonal population was added to the permanent resident population to derive the total population for the City of Sedona.
- The Service Area has been identified with a geographic boundary for comparison to the original percentage market share approach for Yavapai and Coconino Counties. The following cities have been identified to better define (geographically) the service area for Sedona Airport:
  - **Coconino County:** Sedona and Oak Creek Canyon
  - **Yavapai County :** Oak Creek Canyon, Big Park, Camp Verde, Cornville, Lake Montezuma, CCD Remainder (Census County Division)

Note: The Cottowood area was not included in the service area. Although the town is within the NPIAS 30-minute criteria, it has its own general aviation airport serving the community.

**Table 1: Population by Specific Cities Defined as Part of the Service Area for Sedona Airport**

<b>Population by City (Service Area)</b>	<b>1997</b>	<b>2000</b>	<b>2005</b>	<b>2015</b>
Cornville	2,783	3,083	3,807	4,683
Big Park	4,134	4,614	5,453	7,175
Camp Verde	7,999	8,742	10,051	12,759
Lake Montezuma	2,257	2,437	2,752	3,398
CCD Remainder*	4,151	4,370	4,686	5,123
Oak Creek Canyon	320	330	344	358
Sedona Permanent Residents	9,466	10,099	11,230	13,521
Sedona Seasonal Residents	1,656	1,704	1,743	2,158
<b>Total Population in Modified Service Area (Geographic Method)</b>	<b>32,766</b>	<b>35,379</b>	<b>40,066</b>	<b>49,175</b>
<b>Total Population in Original Service Area (Sedona and 9% Market Share of Yavapai and Coconino Counties)</b>	<b>33,078/ 1997</b>	<b>37,082 / year 2002</b>	<b>41,873 / year 2007</b>	<b>52,269 / year 2017</b>

\***CCD (Census County Division)** is the subdivision of a county that is delineated by the Census Bureau in cooperation with State Officials and local census statistical area committees for statistical purpose. The remainder is the population within the within each county that the CCD subdivision does not include.

## What the New Population Data Means to the Forecast

### Sensitivity Analysis of Population to Based Aircraft Forecast

The following table compares the aviation activity forecast using three different methods of identifying Service Areas. The first is the Geographic Service Area that reaches beyond Sedona. This is the preferred method identified by the PAC. The second is the City of Sedona as a Service Area (used for comparison purposes only). The third is the original Service Area identified using a market share approach.

These three scenarios were identified for determining sensitivity in the forecasts when baseline conditions were changed. The ratio between the population and based aircraft remains constant. As shown in the table, using different population numbers does not significantly affect the based aircraft forecasts.

**Table 2: Three Service Area Scenarios for Comparison of Forecasts**

Year	1997	2002	2007	2017
(1) Geographic Service Area Population (beyond Sedona)	32,766	37,992	42,410	55,671
Based Aircraft	103	119	128	156
Annual Operations	40,897	47,243	50,816	61,535
(2) City of Sedona Population (includes seasonal population)	11,122	12,452	13,487	17,488
Based Aircraft	103	116	126	163
Annual Operations	40,897	46,052	50,022	64,711
(3) Market Share Service Area Population @ 9% of each County	33,078	37,082	41,873	52,269
Based Aircraft	103	119	129	158
Annual Operations	40,897	47,244	51,004	66,090

Note: Population Growth has been adjusted to years according to twenty-year planning period.

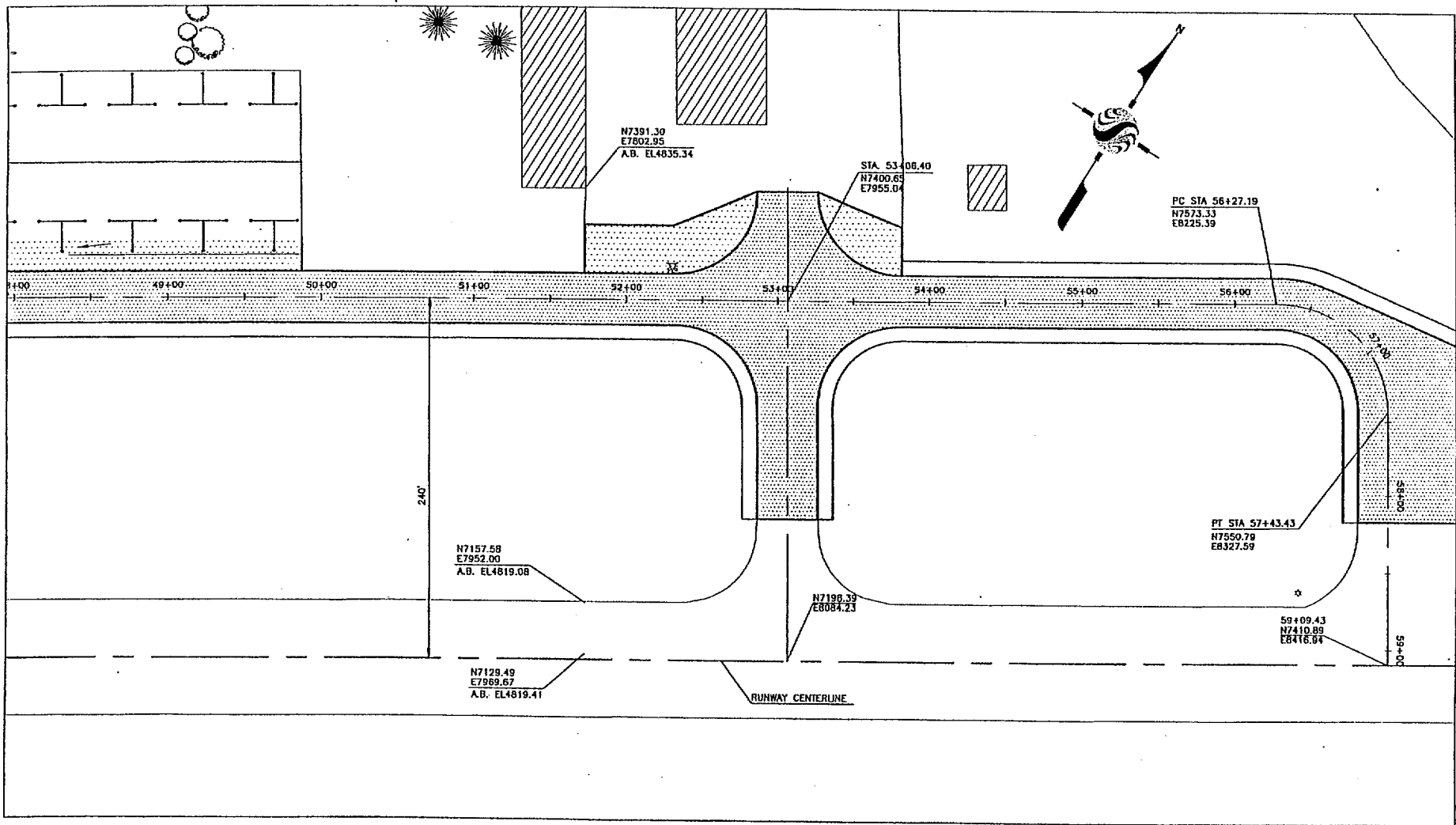
The primary point to remember is that the forecasts serve only as guidelines and planning must remain flexible enough to respond to unforeseen events. The master plan must also preserve the capability to respond to significant changes in aviation demand or to take advantage of market opportunities.

### The Next Steps

The revised forecasts identified above will be incorporated into the previous working papers. The revised working papers will be distributed for follow-up review and comment.

Other comments received from the PAC members will be incorporated into future chapters, as appropriate.

## FACILITY REQUIREMENTS

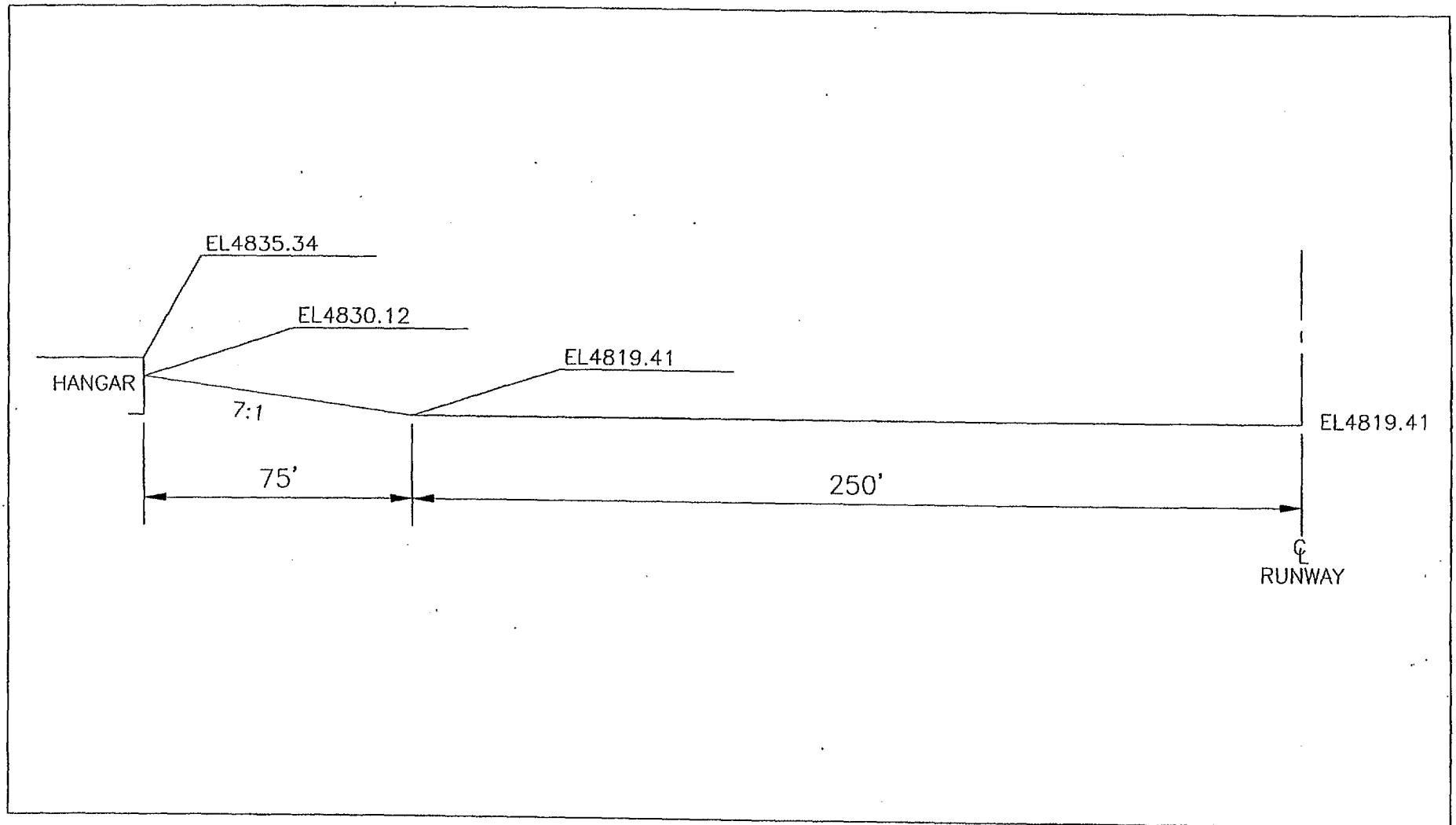


**Stantec**

Client/Project  
SEDONA AIRPORT

Figure No.  
**1.0**

Title  
**HANGAR  
EXHIBIT 1**  
11/19/20



**Stantec**

Client/Project  
SEDONA AIRPORT

Figure No.

**1.0**

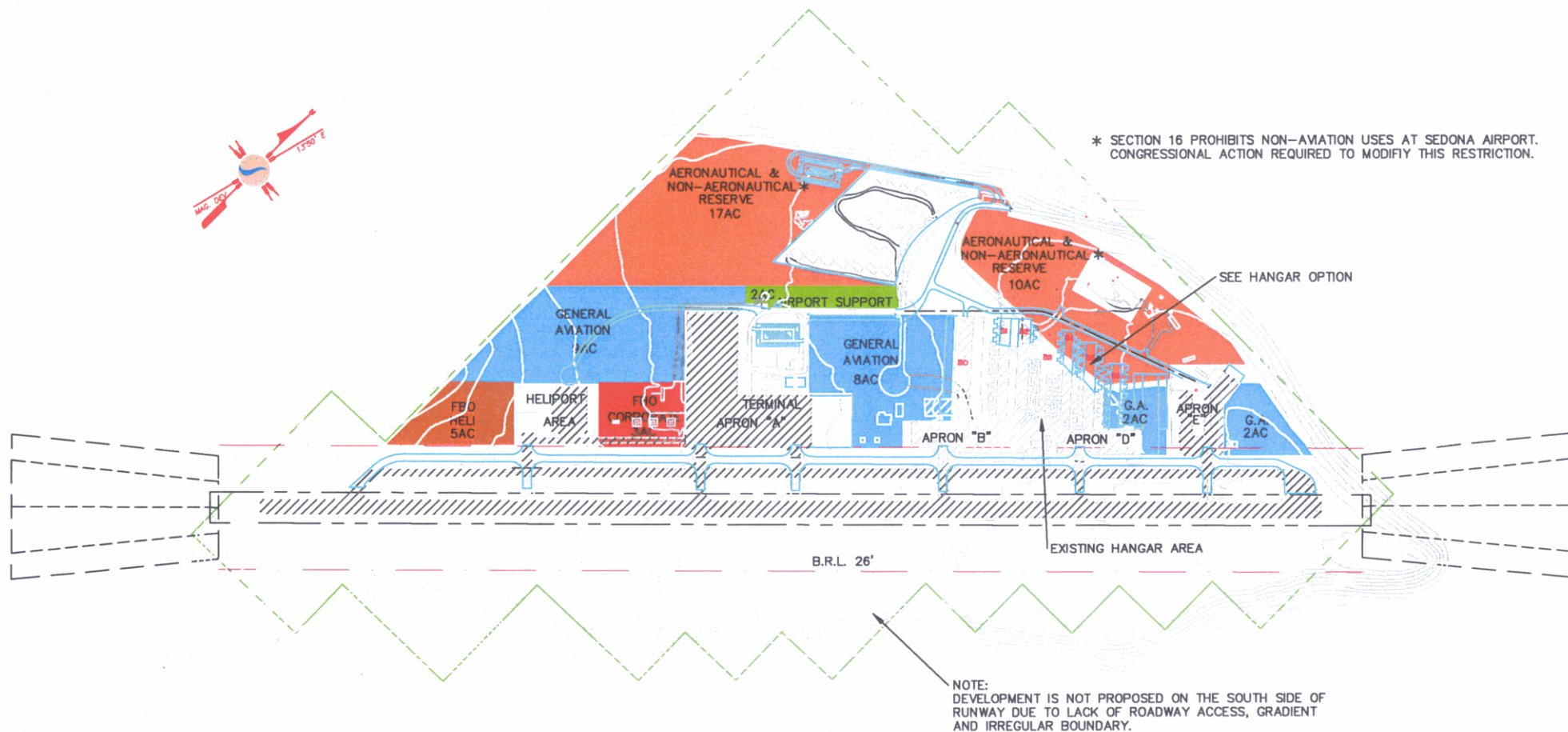
Title

**HANGAR  
EXHIBIT 2**

11/18/99

81442608

## ALTERNATIVES



## ALTERNATIVE A

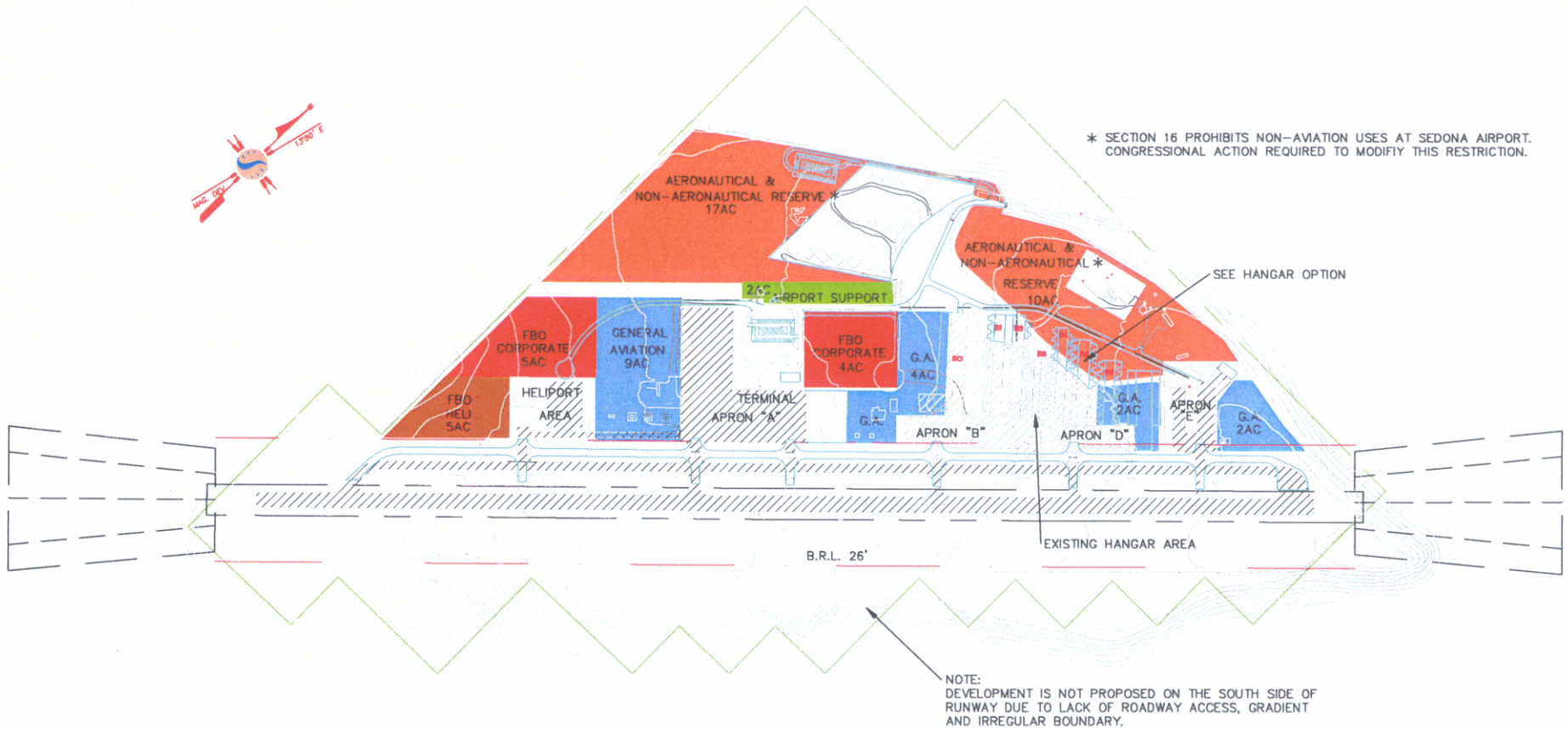
### DEVELOPMENT ALTERNATIVE A

#### AIRFIELD DEVELOPMENT

An existing project, planned for construction in 1999, will move the existing taxiway an additional 65 feet from the runway to accommodate B-II aircraft. There are no additional proposed airside improvements that are significant in terms of runway development.

#### LANDSIDE DEVELOPMENT

<span style="display:inline-block; width:20px; height:10px; background-color:orange;"></span>	AERONAUTICAL & NON-AERONAUTICAL RESERVE	<span style="display:inline-block; width:20px; height:10px; background-color:orange;"></span>	FBO HELICOPTER	<span style="display:inline-block; width:20px; height:10px; background-color:green;"></span>	AIRPORT SUPPORT
<span style="display:inline-block; width:20px; height:10px; background-color:blue;"></span>	GENERAL AVIATION	<span style="display:inline-block; width:20px; height:10px; background-color:red;"></span>	FBO CORPORATE		



## ALTERNATIVE B

### DEVELOPMENT ALTERNATIVE B

#### AIRFIELD DEVELOPMENT

An existing project, planned for construction in 1999, will move the existing taxiway an additional 65 feet from the runway to accommodate B-II aircraft. There are no additional proposed inside improvements that are significant in terms of runway development.

#### LANDSIDE DEVELOPMENT

	AERONAUTICAL & NON-AERONAUTICAL RESERVE		FBO HELICOPTER		AIRPORT SUPPORT
	GENERAL AVIATION		FBO CORPORATE		

## Introduction

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The initial goal of the Airport Master Plan Update is to develop a viable yet flexible development concept for accommodating the aviation demand for the 20-year planning period. For Sedona, land use development concepts were identified first and defined as Alternatives A and B. The consensus at the last PAC meeting was that **Alternative A with modifications** was the preferred land use development concept.

For the purpose of the Sedona Study, Alternative A was defined as future development to provide additional facilities such as hangars and apron areas for not-for-profit private/recreational aircraft owners.

The modifications to Alternative A included the placement of an FBO facility in an area central to the airport, but set back far enough to minimize view obstruction. In addition, it was determined that the "overlook" would not be moved from its current location. Once the basis for land use development was established with the selection of Alternative A, progress toward a detailed airport layout plan followed. This effort included details such as identifying aircraft parking apron configurations (tiedowns, taxilanes), auto parking configurations (vehicle spaces, circulation), and the airport roadway system. For the airport roadway system, two development options were identified -- **Options 1 and 2**.

Attached are graphic **illustrations** of these **roadway options**. The comparison of these two options resulted in a list of **advantages** and **disadvantages** for each outlined on pages 2 and 3.

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**Alternative A - OPTION 1 "Rondels"**

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**Advantages**

- Simple main circulation route
- New Vista overlook – Overflow Parking on same side of road – safer location
- One way Rondels to identify decision points – visually safe and easy
- Introduces a new separate visual/physical Motel entry
- Introduces a new separate physical entry to hangar area
- Gives a 'sense of arrival' by using a Rondel design to identify terminal building decision points for terminal access - safe
- Introduces a new separate terminal access road to focus on Terminal Building
- Allows for a separate service drive from the terminal access road
- Terminus road "Rondel" or "Round a bout"
- Easily expandable parking areas
- Potential relocation of existing trees into landscaping areas
- Water harvesting to facilitate plants and drainage
- Long-term aesthetic values

**Disadvantages**

- May require loss of some motel foreground (2 bungalows)
- Roadway initial construction cost somewhat higher versus Option 2

**Alternative A - OPTION 2 "Straight Intersections"**

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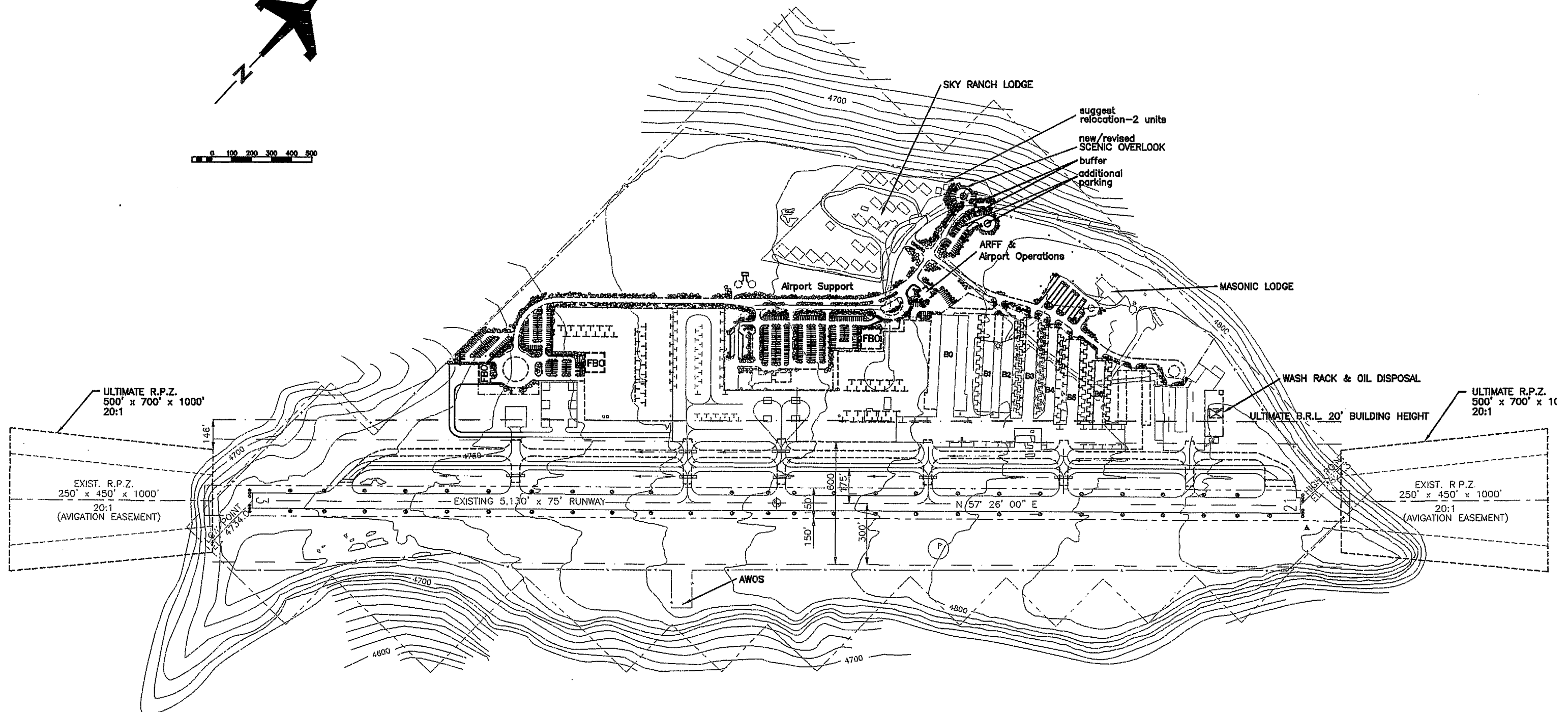
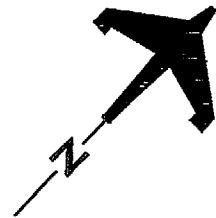
**Advantages**

- Simple main circulation route
- Introduces a new Vista overlook
- Introduces a separate visual/physical Motel entry – creates foreground
- Introduces a new separate terminal access road – focuses on Terminal Building
- Allows for a separate service drive from terminal access road
- Terminus road "Rondel" or "Round a bout"(traffic circle)
- Allows for continuous traffic flow, especially during peak times
- Easily expandable parking areas
- Potential relocation of existing trees into landscaping areas
- Water harvesting to facilitate plants and drainage

**Disadvantages**

- Overflow parking across main road (not contiguous with Overlook area)
- Overlook parking area will cause conflicting traffic of people and vehicles
- Four way intersection with Sky Motel and hangar area (intersection creates traffic risk)
- Signage must be clear and concise due to unclear direction to Terminal Building





## ALTERNATIVE A OPTION 2



Stantec

## ENVIRONMENTAL CORRESPONDENCE AND NOISE DATA

## **Environmental Correspondence**

Stantec Consulting Inc.  
7776 Pointe Parkway W. Suite 290  
Phoenix AZ 85044 USA  
Tel: (602) 438-2200 Fax: (602) 431-9562  
www.stantec.com



**Stantec**

30 March 1999

File: 28342608

U.S. Forest Service  
P.O. Box 300  
Sedona, AZ 86339

**Attention: Jennifer Burns**

Dear Ms. Burns:

**Reference: Sedona Airport Master Plan**

On behalf of the City of Sedona, Stantec Consulting, Inc. is preparing an Airport Master Plan. The purpose of the Master Plan is to present the future facility needs of the Sedona Airport and the preliminary alternative development concepts to meet those needs. Figures 1 & 2 (attached) show the location and topography of the Sedona Airport.

Any comments you wish to make for the Master Plan would be welcomed.

Sincerely,  
**Stantec Consulting, Inc.**

Buildings

Environment

Industrial

Management Systems

Transportation

Urban Land

Stephen J. Powers, Geologist

cc: file

h:\airports\sedona airport\correspondence\usfs ltr.doc



**Stantec**

30 March 1999

File: 28342608

Arizona Game and Fish Department  
2221 W. Greenway Road  
Phoenix, AZ 85023

**Attention: Nancy Olson**  
**Project Evaluation Supervisor**

Dear Ms. Olson:

**Reference: Sedona Airport Master Plan**

On behalf of the City of Sedona, Stantec Consulting, Inc. is preparing an Airport Master Plan. The purpose of the Master Plan is to present the future facility needs of the Sedona Airport and the preliminary alternative development concepts to meet those needs. It is important to know if any threatened, endangered, or special status species or habitat are located in the vicinity of the Sedona Airport so that potential impacts to these may be considered in any Environmental Assessments prepared for future expansion or improvements to the airport. Figures 1 & 2 (attached) show the location and topography of the Sedona Airport.

Any comments you wish to make for the Master Plan regarding the presence in the area of threatened, endangered, or special status species or habitat would be welcomed.

Buildings

Environment

Industrial

Management Systems

Transportation

Urban Land

Sincerely,  
**Stantec Consulting, Inc.**

Stephen J. Powers, Geologist

cc: file

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## Noise Data

INM: Case 2017 - Echo Report

INM 5.1 ECHO REPORT 14-Jun-99 16:33

STUDY: C:\SEDONA\

Created : 10-May-99 17:27

Units : English

Airport :

Description :

SEDONA AIRPORT

INM Study for Sedona Airport

CASE: CASE2017

Created date: 12-May-99 09:41

Description : INM Study - Future Year 2017

STUDY AIRPORT

Lat : 34.843658 deg

Long : -111.793459 deg

Elev : 4734.00 ft

Temp : 95.00 F

Press : 29.92 in-Hg

Wind : 8.00 knt

STUDY RUNWAYS

03

Lat : 34.843658 deg

Long : -111.793459 deg

X : 0.0000 nmi

Y : 0.0000 nmi

Elevation: 4734.0 ft

OtherEnd : 21

Length : 5126 ft

Gradient : 1.82%

Wind : 8.0 knt

TkoThrsh : 0 ft

AppThrsh : 0 ft

21

Lat : 34.853403 deg

Long : -111.781122 deg

X : 0.6092 nmi

Y : 0.5838 nmi

Elevation: 4827.3 ft

OtherEnd : 03

Length : 5126 ft

Gradient : -1.82%

Wind : 8.0 knt

TkoThrsh : 0 ft

AppThrsh : 0 ft

STUDY TRACKS

RwyId-OpType-TrkId

Sub	PctSub	TrkType	Delta(ft)
03	-APP-03A1		
0	18.95	Vectors	0.0
03	-APP-03A2		
0	7.90	Vectors	0.0
03	-APP-03A3		
0	4.74	Vectors	0.0
03	-APP-03A6		
0	6.92	Vectors	0.0

03	-DEP-03D2		
0	0.64	Vectors	0.0
03	-DEP-03D3		
0	10.38	Vectors	0.0
21	-APP-21A4		
0	0.64	Vectors	0.0
21	-APP-21A5		
0	10.38	Vectors	0.0
21	-DEP-21D1		
0	31.59	Vectors	0.0
21	-DEP-21D4		
0	6.92	Vectors	0.0
21	-TGO-21T1		
0	0.93	Vectors	0.0

## STUDY TRACK DETAIL

RwyId-OpType-TrkId-SubTrk	SegType	Param1	Param2 (nmi)
03 -APP-03A1-0			
1	Straight	50.0000 nmi	
2	RightTurn	90.0000 deg	0.0822
3	Straight	0.5300 nmi	
4	RightTurn	45.0000 deg	0.1645
5	Straight	0.8700 nmi	
6	LeftTurn	90.0000 deg	0.0822
7	Straight	0.3400 nmi	
8	LeftTurn	90.0000 deg	0.0822
9	Straight	0.5200 nmi	
03 -APP-03A2-0			
1	Straight	50.0000 nmi	
2	RightTurn	45.0000 deg	0.1645
3	Straight	0.8700 nmi	
4	LeftTurn	90.0000 deg	0.0822
5	Straight	0.3400 nmi	
6	LeftTurn	90.0000 deg	0.0822
7	Straight	0.5200 nmi	
03 -APP-03A3-0			
1	Straight	50.0000 nmi	
2	LeftTurn	90.0000 deg	0.0822
3	Straight	0.3400 nmi	
4	LeftTurn	90.0000 deg	0.0822
5	Straight	0.5200 nmi	
03 -APP-03A6-0			
1	Straight	50.0000 nmi	
2	LeftTurn	80.0000 deg	0.0247
3	Straight	0.0123 nmi	
03 -DEP-03D2-0			
1	Straight	50.0000 nmi	
03 -DEP-03D3-0			
1	Straight	0.1316 nmi	
2	LeftTurn	60.0000 deg	0.0822
3	Straight	50.0000 nmi	
21 -APP-21A4-0			
1	Straight	50.0000 nmi	
2	LeftTurn	90.0000 deg	0.0822
3	Straight	0.6400 nmi	
4	LeftTurn	90.0000 deg	0.0822
5	Straight	1.0600 nmi	

21 -APP-21A5-0  
 1 Straight 50.0000 nmi  
 2 RightTurn 150.0000 deg 0.0247  
 3 Straight 0.0123 nmi  
 21 -DEP-21D1-0  
 1 Straight 50.0000 nmi  
 21 -DEP-21D4-0  
 1 Straight 0.5288 nmi  
 2 RightTurn 43.0000 deg 0.0822  
 3 Straight 50.0000 nmi  
 21 -TGO-21T1-0  
 1 Straight 1.3600 nmi  
 2 LeftTurn 90.0000 deg 0.0822  
 3 Straight 0.6300 nmi  
 4 LeftTurn 90.0000 deg 0.0822  
 5 Straight 2.4200 nmi  
 6 LeftTurn 90.0000 deg 0.0822  
 7 Straight 0.6300 nmi  
 8 LeftTurn 90.0000 deg 0.0822  
 9 Straight 1.0600 nmi

## STUDY AIRCRAFT

BEC58P Standard data

GASEPF Standard data

LEAR25 Standard data

S-76 User-defined

Descrip : INM 4.11 User-Defined S-76 - 250C30  
 UserID : GA  
 WgtCat : Small  
 OwnerCat : GenAviation  
 EngType : Piston  
 NoiseCat : 0  
 Type : Prop  
 NumEng : 1  
 NoiseId : 250C30  
 ATRS : No  
 TkoWgt : 10000 lb  
 LndWgt : 10000 lb  
 LndDist : 0 ft  
 StaticThr : 2 lb

## STUDY SUBSTITUTION AIRCRAFT

## USER-DEFINED NOISE

Type	Thrust	Crv	200	400	630	1000	2000	4000	6300	10000	16000
25000											
250C30 ThrustType:other ModelType:INM											
EPNL	1.0	N	90.2	85.8	82.8	79.4	73.7	67.6	62.5	56.8	51.0
45.5	EPNL	2.0	N	91.2	87.2	84.1	80.7	75.1	68.2	57.4	51.5
45.9	EPNL	3.0	N	97.2	93.1	90.3	87.4	82.6	77.2	68.7	64.1
59.7	SEL	1.0	N	88.6	84.2	81.2	77.8	72.1	66.0	60.9	55.2
43.9	SEL	2.0	N	90.0	85.6	82.5	79.1	73.5	66.6	61.6	55.8
44.3	SEL	3.0	N	95.6	91.5	88.7	85.8	81.0	75.6	71.6	67.1
58.1											

## USER-DEFINED PROFILES

OpType	Prof	Weight (lb)
S-76		
APP	U1	10000
DEP	U1	10000

## USER-DEFINED PROFILE POINTS

	Distance (ft)	Altitude (ft)	Speed (knt)	Thrust	Curve
S-76 -APP-U1					
1	-23696.8	2500.0	160.0	3.0	N
2	-18836.0	2000.0	160.0	3.0	N
3	-14582.7	1500.0	160.0	3.0	N
4	-9721.8	1000.0	160.0	3.0	N
5	-4860.9	500.0	160.0	3.0	N
6	0.0	0.0	160.0	3.0	N
7	0.0	0.0	160.0	3.0	N
S-76 -DEP-U1					
1	0.0	0.0	32.0	2.0	N
2	1376.0	0.0	160.0	2.0	N
3	4126.0	500.0	160.0	2.0	N
4	6876.0	1000.0	160.0	2.0	N
5	6877.0	1000.0	160.0	1.0	N
6	9626.0	1500.0	160.0	1.0	N
7	10000.0	1500.0	160.0	1.0	N
8	15000.0	1500.0	160.0	1.0	N

## USER-DEFINED PROCEDURES

StepType	Flap	ThrType	Param1	Param2 (knt)	Param3
----------	------	---------	--------	--------------	--------

## FLIGHT OPERATIONS

AcftId	Op	Prof	Rwy	Track	Group	Day	Eve	Night
BEC58P	APP	S1	03	03A1	0 GA	13.3400	0.0000	0.1300
BEC58P	APP	S1	03	03A2	0 GA	5.5600	0.0000	0.0600
BEC58P	APP	S1	03	03A3	0 GA	3.3300	0.0000	0.0300
BEC58P	APP	S1	21	21A4	0 GA	0.4500	0.0000	0.0000
BEC58P	DEP	S1	03	03D2	0 GA	0.4500	0.0000	0.0000
BEC58P	DEP	S1	21	21D1	0 GA	22.2300	0.0000	0.2200
GASEPF	APP	S1	03	03A1	0 GA	32.9000	0.0000	0.3300
GASEPF	APP	S1	03	03A2	0 GA	13.7100	0.0000	0.1400
GASEPF	APP	S1	03	03A3	0 GA	8.2300	0.0000	0.0800
GASEPF	APP	S1	21	21A4	0 GA	1.1200	0.0000	0.0100
GASEPF	DEP	S1	03	03D2	0 GA	1.1200	0.0000	0.0100
GASEPF	DEP	S1	21	21D1	0 GA	54.8300	0.0000	0.5500
GASEPF	TGO	S1	21	21T1	0 GA	2.2800	0.0000	0.0200
LEAR25	APP	S1	03	03A1	0 GA	0.2500	0.0000	0.0000
LEAR25	APP	S1	03	03A2	0 GA	0.1000	0.0000	0.0000
LEAR25	APP	S1	03	03A3	0 GA	0.0600	0.0000	0.0000
LEAR25	APP	S1	21	21A4	0 GA	0.0100	0.0000	0.0000
LEAR25	DEP	S1	03	03D2	0 GA	0.0100	0.0000	0.0000
LEAR25	DEP	S1	21	21D1	0 GA	0.4100	0.0000	0.0000
S-76	APP	U1	03	03A6	0 GA	16.9700	0.0000	0.1700
S-76	APP	U1	21	21A5	0 GA	25.4600	0.0000	0.2600
S-76	DEP	U1	03	03D3	0 GA	25.4600	0.0000	0.2600
S-76	DEP	U1	21	21D4	0 GA	16.9700	0.0000	0.1700

## RUNUP OPERATIONS

	ID	X(nmi)	Y(nmi)	Head	Thrust	Time(sec)	Day	Eve
Night								

## USER-DEFINED METRICS

Type	Family	Day	Eve	Night	Time(dB)
------	--------	-----	-----	-------	----------

## USER-DEFINED FLAP COEFFICIENTS

Flap	Op	Coeff R	Coeff C_D	Coeff B
------	----	---------	-----------	---------

## USER-DEFINED JET THRUST COEFFICIENTS

CoeffH	ThrType	CoeffE	Coeff F	CoeffGA	CoeffGB
--------	---------	--------	---------	---------	---------

## USER-DEFINED PROP THRUST COEFFICIENTS

ThrType	Efficiency	Power
---------	------------	-------

## GRIDS

DistJ(nmi)	NI	NJ	X(nmi)	Y(nmi)	Ang(deg)	DistI(nmi)
CNR Contour			-8.0000	-8.0000	0.0	16.0000
2	2					16.0000
D01 Detailed			1.8104	0.4937	0.0	0.0000
1	1					0.0000
S01 Standard			-0.4937	0.2469	0.0	0.1646
2	3					0.1152

## RUN OPTIONS

Run Type : SingleMetric  
 NoiseMetric : DNL  
 TA Threshold : 85.0 dB  
 Do Terrain : No  
 Do Contour : Yes  
 Refinement : 6  
 Tolerance : 1.00  
 Do Population : No  
 Do Locations : No  
 Do Stand.Grid : Yes  
 Do Detail.Grid : Yes  
 Low Cutoff : 55.0  
 High Cutoff : 75.0  
 Compute System Metrics:

DNL : No  
 CNEL : No  
 LAEQ : No  
 LAEQD : No  
 LAEQN : No  
 SEL : No  
 LAMAX : No  
 TALA : No  
 NEF : No  
 WRCPNL : No  
 EPNL : No  
 PNLTM : No  
 TAPNL : No

INM: Case 1997 - Echo Report

INM 5.1 ECHO REPORT 14-Jun-99 16:32

STUDY: C:\SEDONA\

Created : 10-May-99 17:27

Units : English

Airport :

Description :

SEDONA AIRPORT

INM Study for Sedona Airport

CASE: CASE1997

Created date: 11-May-99 14:20

Description : INM Study - Base Year 1997

STUDY AIRPORT

Lat : 34.843658 deg

Long : -111.793459 deg

Elev : 4734.00 ft

Temp : 95.00 F

Press : 29.92 in-Hg

Wind : 8.00 knt

STUDY RUNWAYS

03

Lat : 34.843658 deg

Long : -111.793459 deg

X : 0.0000 nmi

Y : 0.0000 nmi

Elevation: 4734.0 ft

OtherEnd : 21

Length : 5126 ft

Gradient : 1.82%

Wind : 8.0 knt

TkoThrsh : 0 ft

AppThrsh : 0 ft

21

Lat : 34.853403 deg

Long : -111.781122 deg

X : 0.6092 nmi

Y : 0.5838 nmi

Elevation: 4827.3 ft

OtherEnd : 03

Length : 5126 ft

Gradient : -1.82%

Wind : 8.0 knt

TkoThrsh : 0 ft

AppThrsh : 0 ft

STUDY TRACKS

RwyId-OpType-TrkId

Sub PctSub TrkType Delta(ft)

03 -APP-03A1

0 18.95 Vectors 0.0

03 -APP-03A2

0 7.90 Vectors 0.0

03 -APP-03A3

0 4.74 Vectors 0.0

03 -APP-03A6

0 6.92 Vectors 0.0

INM: Case 1997 - Echo Report

03	-DEP-03D2		
0	0.64	Vectors	0.0
03	-DEP-03D3		
0	10.38	Vectors	0.0
21	-APP-21A4		
0	0.64	Vectors	0.0
21	-APP-21A5		
0	10.38	Vectors	0.0
21	-DEP-21D1		
0	31.59	Vectors	0.0
21	-DEP-21D4		
0	6.92	Vectors	0.0
21	-TGO-21T1		
0	0.93	Vectors	0.0

STUDY TRACK DETAIL

RwyId	OpType	TrkId	SubTrk		
	SegType			Param1	Param2 (nmi)
03	-APP-03A1-0				
1	Straight			50.0000 nmi	
2	RightTurn			90.0000 deg	0.0822
3	Straight			0.5300 nmi	
4	RightTurn			45.0000 deg	0.1645
5	Straight			0.8700 nmi	
6	LeftTurn			90.0000 deg	0.0822
7	Straight			0.3400 nmi	
8	LeftTurn			90.0000 deg	0.0822
9	Straight			0.5200 nmi	
03	-APP-03A2-0				
1	Straight			50.0000 nmi	
2	RightTurn			45.0000 deg	0.1645
3	Straight			0.8700 nmi	
4	LeftTurn			90.0000 deg	0.0822
5	Straight			0.3400 nmi	
6	LeftTurn			90.0000 deg	0.0822
7	Straight			0.5200 nmi	
03	-APP-03A3-0				
1	Straight			50.0000 nmi	
2	LeftTurn			90.0000 deg	0.0822
3	Straight			0.3400 nmi	
4	LeftTurn			90.0000 deg	0.0822
5	Straight			0.5200 nmi	
03	-APP-03A6-0				
1	Straight			50.0000 nmi	
2	LeftTurn			80.0000 deg	0.0247
3	Straight			0.0123 nmi	
03	-DEP-03D2-0				
1	Straight			50.0000 nmi	
03	-DEP-03D3-0				
1	Straight			0.1316 nmi	
2	LeftTurn			60.0000 deg	0.0822
3	Straight			50.0000 nmi	
21	-APP-21A4-0				
1	Straight			50.0000 nmi	
2	LeftTurn			90.0000 deg	0.0822
3	Straight			0.6400 nmi	
4	LeftTurn			90.0000 deg	0.0822
5	Straight			1.0600 nmi	

# INM: Case 1997 - Echo Report

```

21 -APP-21A5-0
  1 Straight      50.0000 nmi
  2 RightTurn    150.0000 deg    0.0247
  3 Straight      0.0123 nmi
21 -DEP-21D1-0
  1 Straight      50.0000 nmi
21 -DEP-21D4-0
  1 Straight      0.5288 nmi
  2 RightTurn    43.0000 deg    0.0822
  3 Straight      50.0000 nmi
21 -TGO-21T1-0
  1 Straight      1.3600 nmi
  2 LeftTurn     90.0000 deg    0.0822
  3 Straight      0.6300 nmi
  4 LeftTurn     90.0000 deg    0.0822
  5 Straight      2.4200 nmi
  6 LeftTurn     90.0000 deg    0.0822
  7 Straight      0.6300 nmi
  8 LeftTurn     90.0000 deg    0.0822
  9 Straight      1.0600 nmi
  
```

## STUDY AIRCRAFT

```

BEC58P Standard data
GASEPF Standard data
LEAR25 Standard data
S-76 User-defined
  Descrip      : INM 4.11 User-Defined S-76 - 250C30
  UserID       : GA
  WgtCat       : Small
  OwnerCat     : GenAviation
  EngType      : Piston
  NoiseCat     : 0
  Type         : Prop
  NumEng       : 1
  NoiseId      : 250C30
  ATRS         : No
  TkoWgt       : 10000 lb
  LndWgt       : 10000 lb
  LndDist      : 0 ft
  StaticThr    : 2 lb
  
```

## STUDY SUBSTITUTION AIRCRAFT

### USER-DEFINED NOISE

Type	Thrust	Crv	200	400	630	1000	2000	4000	6300	10000	16000
25000											
250C30 ThrustType:other ModelType:INM											
EPNL	1.0	N	90.2	85.8	82.8	79.4	73.7	67.6	62.5	56.8	51.0
45.5											
EPNL	2.0	N	91.2	87.2	84.1	80.7	75.1	68.2	63.2	57.4	51.5
45.9											
EPNL	3.0	N	97.2	93.1	90.3	87.4	82.6	77.2	73.2	68.7	64.1
59.7											
SEL	1.0	N	88.6	84.2	81.2	77.8	72.1	66.0	60.9	55.2	49.4
43.9											
SEL	2.0	N	90.0	85.6	82.5	79.1	73.5	66.6	61.6	55.8	49.9
44.3											
SEL	3.0	N	95.6	91.5	88.7	85.8	81.0	75.6	71.6	67.1	62.5
58.1											

## INM: Case 1997 - Echo Report

## USER-DEFINED PROFILES

	OpType	Prof	Weight (lb)
S-76			
	APP	U1	10000
	DEP	U1	10000

## USER-DEFINED PROFILE POINTS

	Distance (ft)	Altitude (ft)	Speed (knt)	Thrust	Curve
S-76	-APP-U1				
1	-23696.8	2500.0	160.0	3.0	N
2	-18836.0	2000.0	160.0	3.0	N
3	-14582.7	1500.0	160.0	3.0	N
4	-9721.8	1000.0	160.0	3.0	N
5	-4860.9	500.0	160.0	3.0	N
6	0.0	0.0	160.0	3.0	N
7	0.0	0.0	160.0	3.0	N
S-76	-DEP-U1				
1	0.0	0.0	32.0	2.0	N
2	1376.0	0.0	160.0	2.0	N
3	4126.0	500.0	160.0	2.0	N
4	6876.0	1000.0	160.0	2.0	N
5	6877.0	1000.0	160.0	1.0	N
6	9626.0	1500.0	160.0	1.0	N
7	10000.0	1500.0	160.0	1.0	N
8	15000.0	1500.0	160.0	1.0	N

## USER-DEFINED PROCEDURES

	StepType	Flap	ThrType	Param1	Param2 (knt)	Param3
FLIGHT OPERATIONS						
AcftId	Op	Prof	Rwy	Track	Group	Day Eve Night
BEC58P	APP	S1	03	03A1	0 GA	8.8100 0.0000 0.0900
BEC58P	APP	S1	03	03A2	0 GA	3.6700 0.0000 0.0400
BEC58P	APP	S1	03	03A3	0 GA	2.2000 0.0000 0.0200
BEC58P	APP	S1	21	21A4	0 GA	0.3000 0.0000 0.0000
BEC58P	DEP	S1	03	03D2	0 GA	0.3000 0.0000 0.0000
BEC58P	DEP	S1	21	21D1	0 GA	14.6800 0.0000 0.1500
GASEPF	APP	S1	03	03A1	0 GA	21.7300 0.0000 0.2200
GASEPF	APP	S1	03	03A2	0 GA	9.0500 0.0000 0.0900
GASEPF	APP	S1	03	03A3	0 GA	5.4300 0.0000 0.0500
GASEPF	APP	S1	21	21A4	0 GA	0.7400 0.0000 0.0100
GASEPF	DEP	S1	03	03D2	0 GA	0.7400 0.0000 0.0100
GASEPF	DEP	S1	21	21D1	0 GA	36.2100 0.0000 0.3700
GASEPF	TGO	S1	21	21T1	0 GA	1.5100 0.0000 0.0200
LEAR25	APP	S1	03	03A1	0 GA	0.1600 0.0000 0.0000
LEAR25	APP	S1	03	03A2	0 GA	0.0700 0.0000 0.0000
LEAR25	APP	S1	03	03A3	0 GA	0.0400 0.0000 0.0000
LEAR25	APP	S1	21	21A4	0 GA	0.0100 0.0000 0.0000
LEAR25	DEP	S1	03	03D2	0 GA	0.0100 0.0000 0.0000
LEAR25	DEP	S1	21	21D1	0 GA	0.2700 0.0000 0.0000
S-76	APP	U1	03	03A6	0 GA	11.2100 0.0000 0.1100
S-76	APP	U1	21	21A5	0 GA	16.8100 0.0000 0.1700
S-76	DEP	U1	03	03D3	0 GA	16.8100 0.0000 0.1700
S-76	DEP	U1	21	21D4	0 GA	11.2100 0.0000 0.1100

## RUNUP OPERATIONS

	ID	X (nmi)	Y (nmi)	Head	Thrust	Time (sec)	Day	Eve
Night								

INM: Case 1997 -- Echo Report

USER-DEFINED METRICS

Type	Family	Day	Eve	Night	Time(dB)
------	--------	-----	-----	-------	----------

USER-DEFINED FLAP COEFFICIENTS

Flap	Op	Coeff R	Coeff C_D	Coeff B
------	----	---------	-----------	---------

USER-DEFINED JET THRUST COEFFICIENTS

CoeffH	ThrType	CoeffE	Coeff F	CoeffGA	CoeffGB
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USER-DEFINED PROP THRUST COEFFICIENTS

ThrType	Efficiency	Power
---------	------------	-------

GRIDS

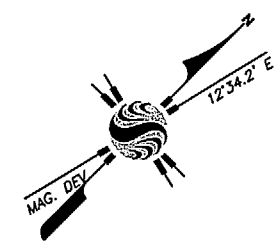
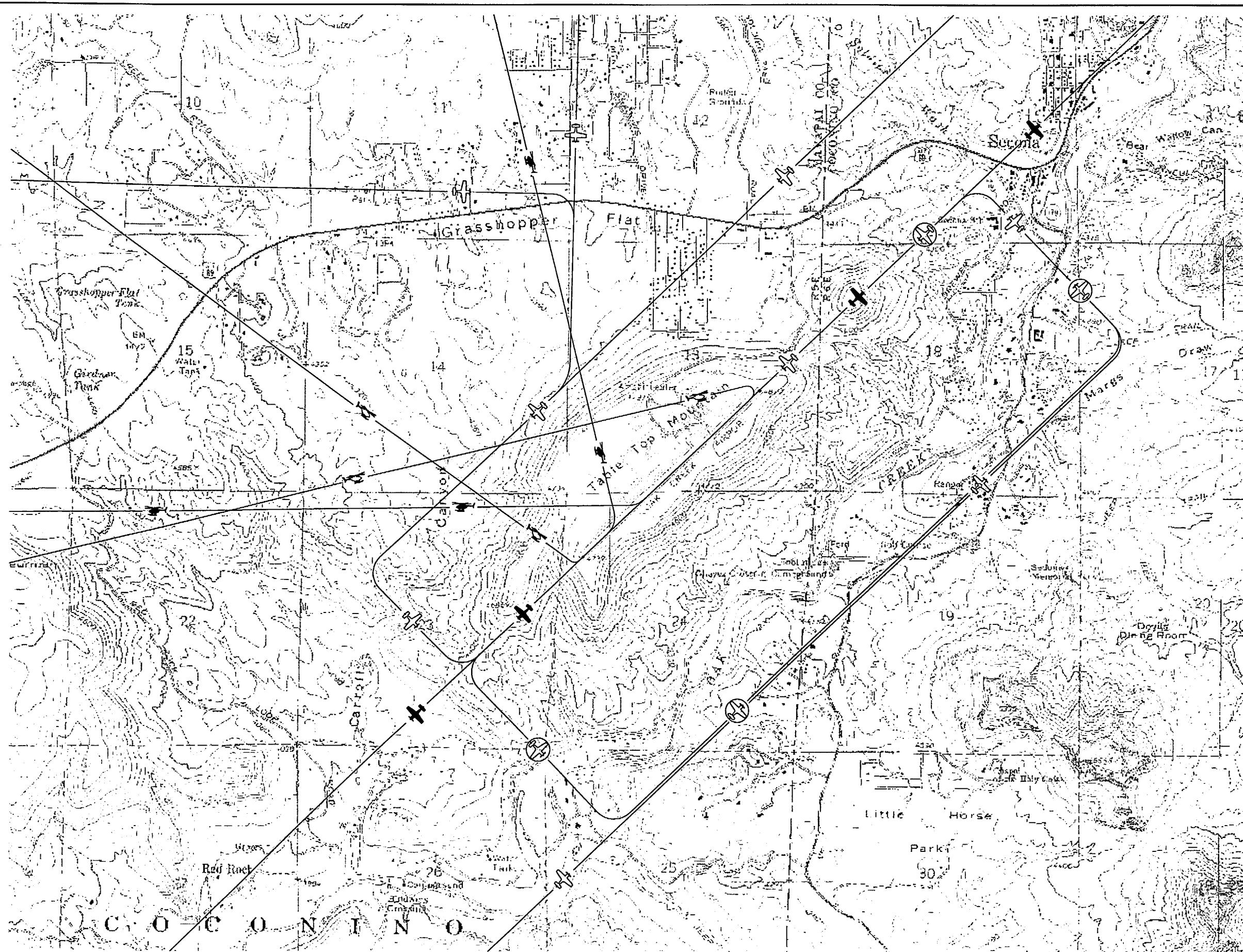
DistJ(nmi)	NI	NJ	X(nmi)	Y(nmi)	Ang(deg)	DistI(nmi)
CNR Contour			-8.0000	-8.0000	0.0	16.0000
2	2					16.0000
D01 Detailed			1.8104	0.4937	0.0	0.0000
1	1					0.0000
S01 Standard			-0.4937	0.2469	0.0	0.1646
2	3					0.1152

RUN OPTIONS

Run Type : SingleMetric  
NoiseMetric : DNL  
TA Threshold : 85.0 dB  
Do Terrain : No  
Do Contour : Yes  
Refinement : 6  
Tolerance : 1.00  
Do Population : No  
Do Locations : No  
Do Stand.Grid : Yes  
Do Detail.Grid: Yes  
Low Cutoff : 55.0  
High Cutoff : 75.0

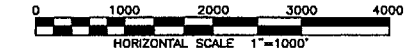
Compute System Metrics:

DNL : No  
CNEL : No  
LAEQ : No  
LAEQD : No  
LAEQN : No  
SEL : No  
LAMAX : No  
TALA : No  
NEF : No  
WECPNL : No  
EPNL : No  
PNLTM : No  
TAPNL : No



# LEGEND

- ✈— ARRIVAL FLIGHT TRACK AIRPLANE TRAFFIC
- ✈— ARRIVAL FLIGHT TRACK HELICOPTER TRAFFIC
- ✈— DEPART. FLIGHT TRACK AIRPLANE TRAFFIC
- ✈— DEPART. FLIGHT TRACK HELICOPTER TRAFFIC
- (H)— T&G FLIGHT TRACK AIRPLANE TRAFFIC



## SEDONA AIRPORT

SEDONA, ARIZONA

## FLIGHT TRACK MAP

SCALE	JOB NO.	DATE
1"=1000'	81442608	JUNE 15, 1999

**Stantec Consulting Inc.**  
 7778 Polaris Parkway N, Suite 200  
 Phoenix, Arizona 85044 USA  
 Phone: (602) 435-2200 Fax: (602) 431-0042

# AIRPORT LAYOUT PLANS

U.S. Department of Transportation  
Federal Aviation Administration  
Western-Pacific Region – Airports Division

AIRPORT LAYOUT PLAN DRAWING CHECKLIST

Name of Airport: Sedona Airport  
 Location of Airport: Sedona, AZ  
 Date of Review: 9/13/99 Reviewed by: Mira Martin

<u>Item</u>	<u>Included</u>	<u>Remarks</u>
	<u>Yes</u> <u>No</u>	
<u>SHEET SIZE:</u> 24" X 36"	(X) ( )	
<u>BAR SCALE:</u> 1"=200' to 1"=600'	(X) ( )	
<u>NORTH ARROW:</u> True & Current Magnetic Declination w/Annual Rate of Change	(X) ( )	
<u>WIND ROSE:</u> Source & Time Period	(X) ( )	
Shown in MPH & Knots	(X) ( )	
12 MPH Individual & Combined Coverage	(X) ( )	
15 MPH Individual & Combined Coverage	(X) ( )	
<u>AIRPORT REFERENCE POINT</u> Existing	(X) ( )	
Ultimate Development	( ) ( )	N/A
Labeled Lat/Long at point on drawing	(X) ( )	
<u>TOPOGRAPHIC INFO:</u> 2' to 10' Contours	(X) ( )	
Contours are Labeled	(X) ( )	
<u>NAD 83: (Mandatory)</u> North American Datum Used for <u>ALL</u> Lat/Long identifications	(X) ( )	
<u>ELEVATIONS:</u> Existing Runway Ends including Displaced Threshold	(X) ( )	
Ultimate Runway Ends	(X) ( )	
Runway Intersections	(X) ( )	

Runway High & Low Points	(X)	( )	_____
Touchdown Zone Elevation			_____
(TDZE) Highest RWY Elevation			_____
in first 3000' of any RWY which	(X)	( )	_____
will have published straight-in			_____
minimums			_____

LINES:

Existing Property Boundary	(X)	( )	_____
Ultimate Property Boundary	(X)	( )	_____
Building Restriction Line (BRL)-			_____
on both sides of the Runway	(X)	( )	_____
Section Corners (minimum of 2)	(X)	( )	_____
Existing Development shown			_____
with Solid or Bold Lines	(X)	( )	_____
Future Development shown			_____
w/Dashed or Screened Lines	(X)	( )	_____

RUNWAY DRAWING DETAILS:

Length & Width of Existing R/W	(X)	( )	_____
Length & Width of Ultimate R/W	( )	( )	N/A
End Numbers – for each end	(X)	( )	_____
True Bearings to nearest sec.	(X)	( )	_____
Runway Markings –			_____
(Basic, Non-Prec., Precision)	(X)	( )	_____
Existing Lighting shown	(X)	( )	_____
Ultimate Lighting indicated	(X)	( )	_____
Lat./Long. & Elevations for			_____
Runway Thresholds and			_____
Displaced Thresholds	(X)	( )	_____
Runway Safety Areas (RSA)			_____
w/dimensions	(X)	( )	_____
Centerline shown w/ true			_____
bearings	(X)	( )	_____
Existing Runway should be			_____
lightly shaded	(X)	( )	_____
Approach aides indicated (ILS,			_____
REILS)	(X)	( )	_____
Obstacle Free Zone (OFZ)			_____
-Based on usage by only small	(X)	( )	_____
Airplanes or to include Large			_____
Aircraft			_____
Latitude, Longitude & Elevation			_____
-For any non-federal on-airport			_____
NAVAID to be used in the Instrument			_____
Approach Procedure	( )	( )	N/A

TAXIWAY DETAILS:

Width of Existing	(X)	( )	_____
Width of Ultimate	(X)	( )	_____
Labeled by Name (i.e. T/W A,			_____
T/W B, T/W D)	(X)	( )	_____
Dimensional Clearance Widths			_____
And Separations from:			_____
a) Runway Centerline(s)	(X)	( )	_____

b) Parallel Taxiway (X) ( )  
 c) Aircraft Parking Area(s) (X) ( )

AIRCRAFT PARKING APRON:

Existing location depicted (X) ( )  
 Ultimate location depicted (X) ( )  
 If scale permits:  
 Aircraft Tie-down locations (X) ( )  
 Aircraft Tie-down layout (X) ( )

RUNWAY PROTECTION ZONES:

Dimensions Indicated (X) ( )  
 Approach Slope Labeled ex: 20:1 (X) ( )  
 Existing RPZ shown (X) ( )  
 Ultimate RPZ shown (X) ( )  
 Type of Ownership: (Labeled)  
 a) Currently Own in Fee (X) ( )  
 b) Avigation Easement (X) ( )  
 c) Future Fee Acquisition (X) ( )  
 d) Unregulated ( ) ( )  
 Hatching/Shading not used ( ) (X)

See Note

TITLE & REVISION BLOCKS:

Name & Location of Airport (X) ( )  
 Name of Preparer (Sponsor or  
 Consultant) (X) ( )  
 Date of Drawing (X) ( )  
 Drawing Title (ALP, Terminal) (X) ( )  
 Revision Area Block provided  
 w/FAA Disclaimer information (X) ( )  
 Approval Block (Sponsor only) (X) ( )  
 Standardized Area for FAA (X) ( )  
 Approval Stamp (X) ( )

AIRPORT DATA BLOCK:

Airport Elevation in Feet above  
 Mean Sea Level (MSL)  
 a) Existing (X) ( )  
 b) Ultimate (X) ( )  
 Airport Reference Point (ARP)  
 Coordinates (Lat/Long to  
 nearest second)  
 a) Existing (X) ( )  
 b) Ultimate (X) ( )  
 Airport & Terminal NAVAIDS  
 indicated (Beacon, ILS, etc.) (X) ( )  
 Mean Max. Temp. -Indicate  
 hottest month in degrees  
 Fahrenheit (X) ( )  
 Airport Reference Code:  
 - Runway Category (A-D) (X) ( )  
 - Airplane Design Group (I-VI) (X) ( )  
 Example: (A-I, B-II, D-VI)  
 Design Aircraft (B-727, Cessna 172,  
 B-747) Desired airport usage (X) ( )  
 GPS at Airport (X) ( )

**RUNWAY DATA BLOCK:**

(Indicate for each Runway)

% Effective Gradient	(X)	( )	_____
% Wind Coverage (show MPH)	(X)	( )	_____
Max Elevation Above MSL	(X)	( )	_____
Runway Length – Existing	(X)	( )	_____
Runway Length – Ultimate	(X)	( )	_____
Runway Width – Existing	(X)	( )	_____
Runway Width – Ultimate	(X)	( )	_____
Runway Surface Type (turf, dirt, asphalt)	(X)	( )	_____
Taxiway Surface Type (turf, dirt, asphalt)	(X)	( )	_____
Instrument Runway (type)	( )	( )	N/A
Approach Slope (20:1, 50:1, 34:1)	(X)	( )	_____
Pavement Strength in lbs. and type (single wheel, dual, dual tandem)	(X)	( )	_____
Runway Lighting (low, medium, high – LIRL, MIRL, HIRL)	(X)	( )	_____
Runway Marking (Basic, Non-prec)	(X)	( )	_____
Navigational Aids (ILS, NDB, GPS)	(X)	( )	_____
Visual Aids (GVGI, REIL, etc.)	(X)	( )	_____
Runway Safety Area (RSA)			_____
Dimensions:			
a) Length beyond runway end	(X)	( )	_____
b) Width	(X)	( )	_____
FAR Part 77 Category by Rwy End:			
a) visual/visual	(X)	( )	_____
b) precision/non-precision	( )	( )	N/A
c) visual/utility	( )	( )	N/A
d) non-precision/utility	( )	( )	N/A

**MISCELLANEOUS:**

Adjacent land uses to airport identified/labeled?	(X)	( )	_____
Airport Facilities List (Existing and Ultimate)	(X)	( )	_____
Symbolic Legend – all symbols identified?	(X)	( )	_____
Location Map	(X)	( )	_____
Vicinity Map	(X)	( )	_____
Roadways Identified?	(X)	( )	_____

**RWY END COORDINATE BOX:**

Give Lat. & Long. For each End			
- Existing	(X)	( )	_____
- Ultimate	( )	( )	N/A

**ADDITIONAL COMMENTS:****Note:**

Land Use Map depicts land use boundary data from the City of Sedona.

**"PROPERTY BOUNDARY DISCREPANCY DOCUMENTATION"**



OFFICE OF THE  
**PUBLIC WORKS DEPARTMENT**

□ Road Division □ Engineering Division □ Solid Waste Division □ Emergency Management  
1100 Commerce Drive  
Prescott, Arizona 86305  
Phone (520) 771-3183  
FAX (520) 771-3167

Richard L. Straub  
Director

July 7, 1999

Ms. Judy Adams  
Sedona Ranger District  
P.O. Box 300  
Sedona, AZ 86339

Post-it* Fax Note	7671	Date	7-7-99	# of pages	1
To		From	Byron Tapers		
Co./Dept.	Statue	Co.	Yavapai County		
Phone #		Phone #	771-3183		
Fax #	431-9562	Fax #			

Re: Encroachment on Forest Land at Sedona Airport

Dear Ms. Adams

We met in your office on June 30, 1999 regarding the above referenced encroachment and the current construction at the Sedona Airport. After a subsequent meeting with the project consultant, Statue Consulting, Inc., the Sedona Airport Authority and Yavapai County it was felt by all concerned that it would be best to put our request in writing for documentation purposes.

The situation is as follows. The airport was acquired early in the 1960's and the legal descriptions were based on allocate parts of standard sections. Due to the extreme topography in this area, an accurate survey of the airport boundary was not available until very recently. In 1998 Yavapai County made an accurate survey of the property using "GPS" technology. This survey revealed that the sections in this area were less than standard size greatly reducing the boundaries of the airport.

Over the past 30 years the airport has conducted many projects to improve the facility and increase safety. At this time a project is under way to relocate the existing taxiway further from the runway to comply with current safety regulations. This project is being funded by FAA, ADOT Aeronautical, and local funds. Additionally, the Airport Authority is preparing a Master Plan for proposed improvements over the next 20 years. In conjunction with the recent survey and the preparation of the Master Plan, it has become apparent that this taxiway relocation will encroach on a small portion of Forest Land, approximately 0.25 acres, that was previously thought to be part of the airport property.

As the taxiway relocation is currently under construction and work is scheduled to begin in this area in approximately two weeks, Yavapai County and the Sedona Airport Authority are requesting permission to encroach on this area until acquisition of this land can be formalized.

This would allow the safety improvements at the airport to be completed as scheduled and the county and the airport authority would then complete the formalized acquisition process for this parcel and any additional parcels required for future improvements shown on the 20 Year Master Plan all at the same time.

I apologize for the time frame, however we took action as soon as this problem became apparent.

I would appreciate your consideration of this matter and a written response as soon as possible.

Sincerely,

  
Byron Tapers  
Project Management Director

Cc: Ken Anderson, Sedona Ranger District; Sedona Airport Authority; Statue Consulting; Richard Straub, Public Works Director; Dave Hunt, Board Council



United States  
Department of  
Agriculture

Forest  
Service

Beaver Creek/ Sedona  
Ranger Districts

P.O. Box 300  
Sedona, AZ 86339-0300  
Phone: (520) 282-4119  
Fax: (520) 283-7539

File Code: 2720

Date: July 14, 1999

Byron Jaspers, Project Management Director  
Yavapai County, Public Works Department  
1100 Commerce Drive  
Prescott, AZ 86305

Dear Mr. Jaspers:

This is in response to your July 7, 1999 letter regarding the safety improvements of the taxiway at the Sedona Airport. I understand from your letter and from your discussions with Judy Adams of my staff that the proposed improvements to the taxiway would extend beyond the airport property onto the National Forest. Your letter requests permission to use 0.25 acres of National Forest to construct those improvements until such time as the county could acquire the area and other additional expansion areas associated with the 20-year development plan.

While I understand that your plans did not intend to use National Forest and that the boundary survey only recently discovered the proposal would impact the National Forest, we cannot approve your request at this time. You have indicated that the current design would require use of the National Forest, but it is not clear from your letter what if any other options are available. Forest Service policy states that use requests should be denied when there is an alternative available on non-federal land.

We would be glad to work with you if indeed there is no alternative available to resolve the safety issues at this location but cannot meet your construction deadline. Proposed uses of National Forest require an appropriate environmental analysis that at a minimum requires surveys and clearances for historical and archeological resources and threatened and endangered species. There is also a requirement for adequate public involvement. In order to consider the use of the area, we would need to allow for public comment on the proposal. We have no authority to give you permission to "encroach" without going through an analysis process. Public involvement is especially important in this area because of the existing community concerns about airport activities, as well as that the proposed use is a permanent facility and likely result in purchase of the area by Yavapai County.

However, I do appreciate that once you discovered the problem, you did contact our office to ask for advice. If you would like to pursue a special use permit and consideration of Townsite Act purchase of the area, you will need to better describe why use of the National Forest is the only alternative and what is the extent of the proposal. We would then ask for public comment and determine what level of concern there is with the proposal. This will take some time and effort from both Yavapai County and the Forest Service and require a delay in the construction contract. The timing of the process would be determined by the level of public concern.



Again, I appreciate that you are willing to work with us to resolve this issue and for notifying us of the problem. If you would like to further discuss the process or possible alternatives, please fee free to talk with Judy. You may also want to discuss the situation with FAA to determine what authorities they may have to assist with this situation.

Sincerely,

A handwritten signature in cursive script that reads "Ken Anderson".

KEN ANDERSON  
District Ranger

Stantec Consulting Inc.  
7776 Pointe Parkway W. Suite 290  
Phoenix AZ 85044 USA  
Tel: (602) 438-2200 Fax: (602) 431-9562  
www.stantec.com



**Stantec**

July 15, 1999

Federal Aviation Administration  
Western Pacific Region, Airports Division  
World Way Postal Center  
P.O. Box 92007  
Los Angeles, CA. 90009

Attn: Rudy Victorio

Re: Sedona Airport Taxiway "A" Relocation  
AIP 3-04-0033-09&10  
ADOT E9068, E9094

Dear Rudy,

Per our phone conversation on July 14, 1999, we discussed an issue discovered during the construction of the above reference project. Yavapai County performed a boundary survey to address the requirements set forth for the master plan. The new property boundary discovered the taxiway relocation project would encroach on National Forest Service property. The County has notified the Forest Service and measures are being taken to resolve this issue, please refer to the attached letter dated July 7, 1999 from Yavapai County to the National Forest Service.

However, Yavapai County has instructed Stantec to redesign that portion of taxiway that would encroach on Forest Service property.

The contractor has not been significantly impacted as to require a change order. All quantities shall be adjusted accordingly in the as-built process. I have enclosed the revised sheets for your review and your concurrence is appreciated. If you have any questions or need additional information please contact me.

Buildings

Environment

Industrial

Management Systems

Transportation

Urban Land

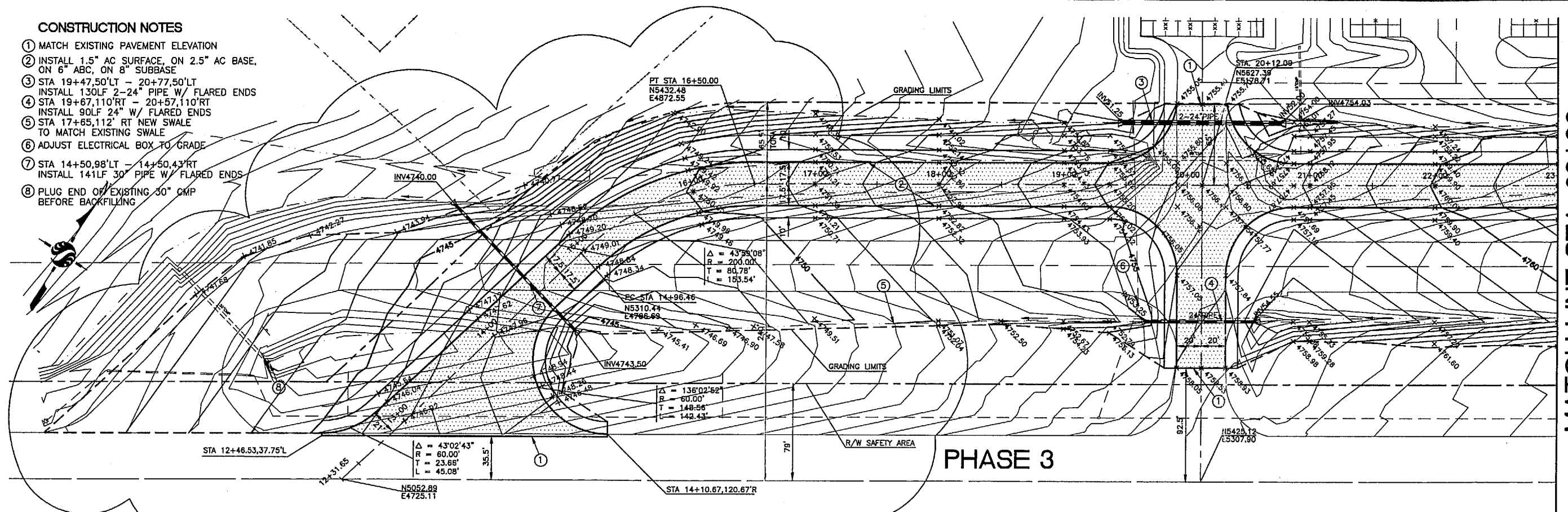
Sincerely,

Gregory A. Mead  
Project Manager, Stantec Consulting Inc.

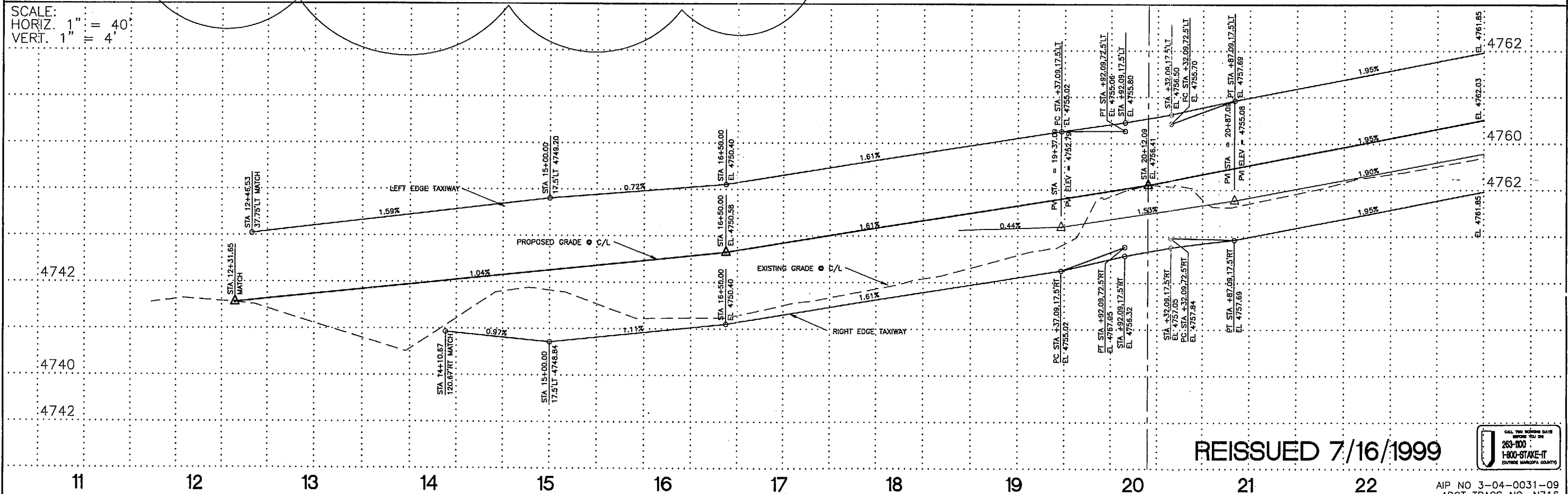
Cc Byron Jaspers, Yavapai County  
Sedona Airport Administration

# CONSTRUCTION NOTES

- 1 MATCH EXISTING PAVEMENT ELEVATION
- 2 INSTALL 1.5" AC SURFACE, ON 2.5" AC BASE, ON 6" ABC, ON 8" SUBBASE
- 3 STA 19+47.50'LT - 20+77.50'LT  
INSTALL 130LF 2-24" PIPE W/ FLARED ENDS
- 4 STA 19+67.110'RT - 20+57.110'RT  
INSTALL 90LF 24" W/ FLARED ENDS
- 5 STA 17+65.112' RT NEW SWALE  
TO MATCH EXISTING SWALE
- 6 ADJUST ELECTRICAL BOX TO GRADE
- 7 STA 14+50.98'LT - 14+50.43'RT  
INSTALL 141LF 30" PIPE W/ FLARED ENDS
- 8 PLUG END OF EXISTING 30" CMP  
BEFORE BACKFILLING



SCALE:  
HORIZ. 1" = 40'  
VERT. 1" = 4'



REISSUED 7/16/1999



AIP NO 3-04-0031-09  
ADOT TRACS NO. N716

NO.	DATE	REVISION
1	7/99	CHANGE IN ALIGNMENT

Date	1998
Designed	RJD/LT
Drawn	LT
Checked	RJD
File No.	SED-TXWY

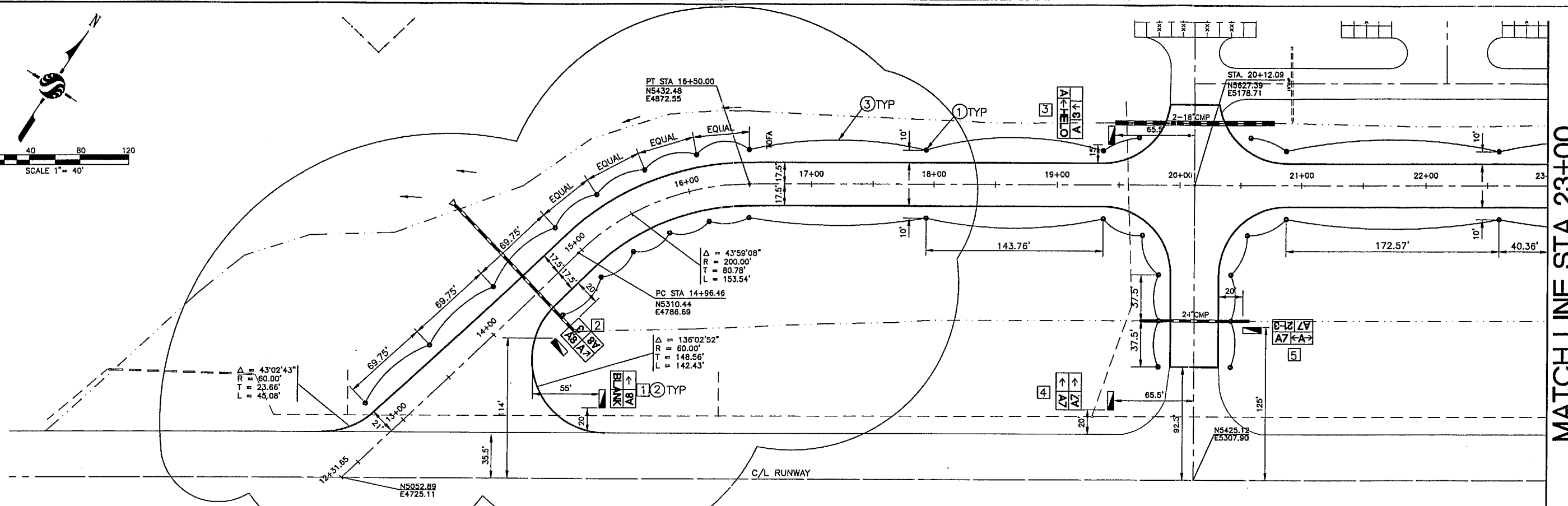
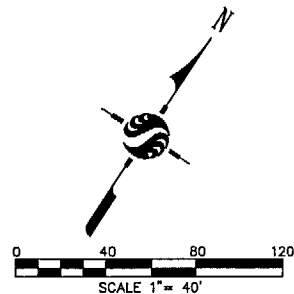
SEDONA AIRPORT  
TAXIWAY IMPROVEMENTS  
SEDONA, ARIZONA



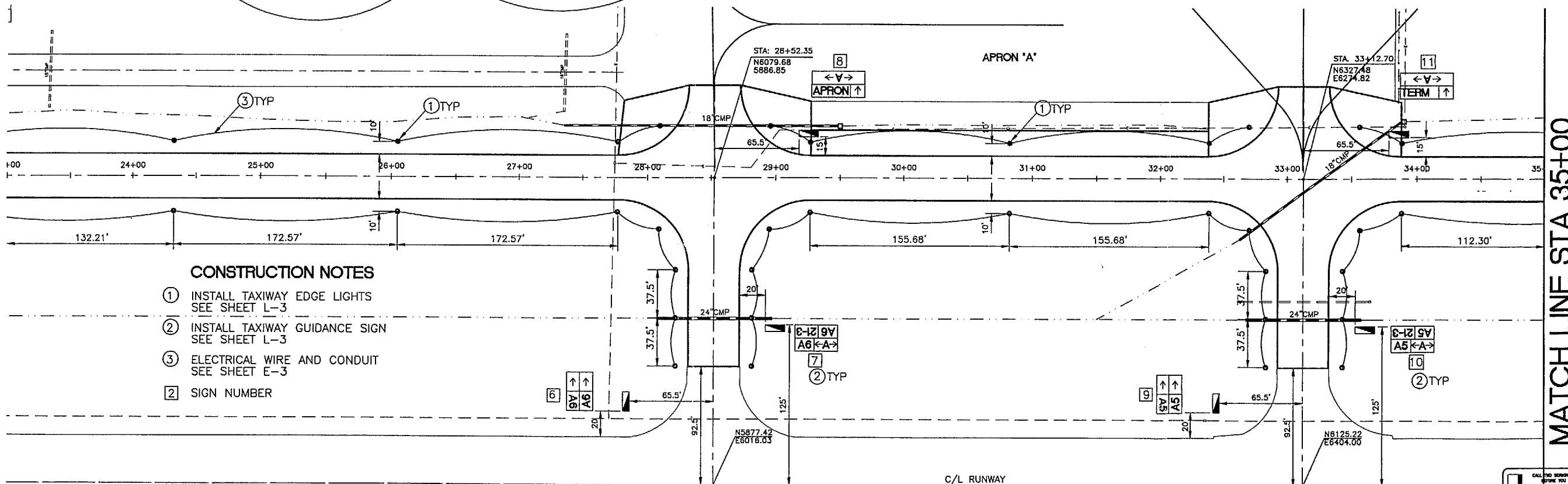
Stantech Consulting Inc.  
7776 Pointe Parkway W, Suite 290  
Phoenix, Arizona 85044 USA  
Phone: (602) 438-2200 Fax: (602) 431-0562  
Fax: (602) 431-9809 (Land Development)

TAXIWAY PLAN / PROFILE  
STA 11+33.19 to STA 23+00

SHEET	PP-1
PROJECT	NO. 28342611
DWG.	NO. 5



MATCH LINE STA 23+00



### CONSTRUCTION NOTES

- ① INSTALL TAXIWAY EDGE LIGHTS  
SEE SHEET L-3
- ② INSTALL TAXIWAY GUIDANCE SIGN  
SEE SHEET L-3
- ③ ELECTRICAL WIRE AND CONDUIT  
SEE SHEET E-3
- ④ SIGN NUMBER

REISSUED 7/16/1999

AIP NO. 3-04-0031-09  
ADOT TRACS NO. N716

NO.	DATE	REVISION
1	7/99	LIGHTING CHANGE PER NEW ALIGNMENT CHANGE

LT	GM
BY	APPD.
File No.	SED-LGHT

SEDONA AIR PORT  
TAXIWAY IMPROVEMENTS  
SEDONA, ARIZONA



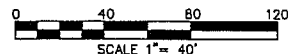
Stantech Consulting Inc.  
7778 Pointe Parkway N, Suite 200  
Phoenix, Arizona 85044 USA  
Phone: (602) 438-2200 Fax: (602) 431-9562  
Fax: (602) 431-9609 (Land Development)

TAXIWAY  
LIGHTING PLAN

SHEET	L-1
PROJECT NO.	28342611
DWG. NO.	12

# STRIPING NOTES

- ① HOLD BAR SEE DETAIL SHEET C-11
- ② 6" WIDE CONTINUOUS YELLOW STRIPE
- ③ 2-6" WIDE CONTINUOUS YELLOW STRIPE
- ④ MATCH EXISTING STRIPE



$\Delta = 43^{\circ}02'43''$   
 $R = 60.00'$   
 $T = 23.66'$   
 $L = 45.08'$

PT STA 16+50.00  
 N5432.48  
 E4872.55

PC STA 14+96.46  
 N5310.44  
 E4786.69

$\Delta = 136^{\circ}02'52''$   
 $R = 60.00'$   
 $T = 148.56'$   
 $L = 142.43'$

STA. 20+12.09  
 N5627.39  
 E5176.71

N5425.12  
 E5307.90

MATCH LINE STA 23+00

MATCH LINE STA 23+00

# STRIPING NOTES

- ① HOLD BAR SEE DETAIL SHEET C-11
- ② 6" WIDE CONTINUOUS YELLOW STRIPE
- ③ 2-6" WIDE CONTINUOUS YELLOW STRIPE
- ④ MATCH EXISTING STRIPE
- ⑤ 20' LONG X 3' WIDE YELLOW STRIPE

STA: 28+52.35  
 N6079.68  
 E5866.65

22'30" (TYP)

STA. 33+12.70  
 N6327.48  
 E6274.82

N6125.22  
 E6404.00

MATCH LINE STA 35+00

REISSUED 7/16/1999

AIP NO 3-04-0031-09  
 ADOT TRACS NO. N716

1	7/99	CHANGE STRIPING PER ALIGNMENT CHANGE	LT	CM	Date 1998
NO.	DATE	REVISION	BY	APPD.	Designed RJD/LT
					Drawn LT
					Checked RJD
					File No. SED-MRKPL

SEDONA AIRPORT  
 TAXIWAY IMPROVEMENTS  
 SEDONA, ARIZONA



Stantech Consulting Inc.  
 7776 Pointe Parkway W. Suite 280  
 Phoenix, Arizona 85044 USA  
 Phone: (602) 438-2200 Fax: (602) 431-9562  
 Fax: (602) 431-9809 (Land Development)

TAXIWAY  
 MARKING PLAN

SHEET  
 MK-1  
 PROJECT  
 NO. 28342611  
 DWG.  
 NO. 9

# FINANCIAL

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# ECONOMIC BENEFIT ANALYSIS

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## 1.0 INTRODUCTION

This report presents the results of a study of the economic benefits of Sedona Airport on the airport service area for the year 1998.

The Sedona Airport is located in the City of Sedona, Arizona. The airport service area includes the City of Sedona as well as Oak Creek and portions of both Yavapai and Coconino Counties. The area is internationally known for its striking scenery and draws visitors and new residents throughout the year. The airport provides general aviation services for both recreational and business travelers.

The methodology of the economic benefit analysis follows procedures similar to those recommended by the Federal Aviation Administration, the Aircraft Owners and Pilots Association, and the American Association of Airport Executives.

Interviews and surveys of suppliers and users of aviation services were conducted to measure economic activity created and supported within the service area by the airport. Sources of information included based aircraft owners, on-airport employers, government agencies, and business and recreational general aviation travelers who used the airport.

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## 2.0 MEASURING AIRPORT BENEFITS

Airports benefit the regional economy through the revenues, earnings and jobs associated with aviation activity both on and off the airport. Airports create employment, produce income, and influence regional spending levels. On-airport economic activity includes outlays by both suppliers and users of aviation services. Off-airport activity is primarily linked to visitors and air travelers.

There are three *measures* of economic benefits used in this study:

- **Gross Revenues**
- **Earnings**
- **Employment**

**Gross revenues** measure the stream of dollars from airport-related economic activity and include sales of business firms, visitor expenditures, and government spending.

**Employment** is a measure of the number of jobs supported by the gross revenues within the service area, both on and off the airport.

**Earnings** represent the payments received by workers who create the goods and services that are sold to produce gross revenues.

There are four *types* of economic benefits associated with activity at Sedona Airport.

- **Direct Benefits**
- **Indirect Benefits**
- **Induced (Multiplier) Benefits**
- **Total Benefits**

**Direct Benefits** result from the supply of aviation goods and services on the airport. Producers of Direct Benefits at Sedona Airport include private businesses and the airport administration.

**Indirect Benefits** are due to off-site activity caused by the presence of the aviation facility. Indirect Benefits in the Sedona Airport service area result when air traveler spending creates revenues, jobs, and earnings in the tourism sector. Combined Direct and Indirect Benefits are Primary (or initial) Benefits.

**Induced Benefits** are the multiplier effects of the Direct and Indirect Benefits that occur as the initial dollars injected into the economy are respent within the service area. Multiplier effects come into play when, for example, an aircraft mechanic's wages are spent to purchase food, housing, clothing, and medical services in the local community. These second round dollars induce more jobs and earnings in the economy of the region, creating a multiplier or secondary impact.

### **Total Economic Benefits**

- **185 Total Jobs Supported**
- **\$2.5 Million Total Earnings**
- **\$12.2 Million Gross Revenues**

**Total Benefits** are the sum of the Direct, Indirect and Induced Benefits. The Total Benefits encompass the initial Direct and Indirect Benefits (or Primary Benefits) plus the secondary multiplier economic impacts of the airport on the service area on revenues, earnings, and employment. The Total Benefits of Sedona Airport in 1998 are illustrated in the box below.

The airport was the source of total gross revenues of \$12.2 million. This is the measure of all spending flows associated with the presence of the airport and incorporates all multiplier effects of Induced Benefits. This spending and output supported 185 jobs within the service area of the airport, with total earnings to workers of \$2.5 million.

### 3.0 SUMMARY OF BENEFITS

Direct, Indirect, and Induced Benefits created by Sedona Airport are shown in Table 1. Measured by revenues, forty percent of benefits are Direct (\$4.8 million); thirteen percent are Indirect (\$1.6 million); and forty seven percent of benefits (\$5.8 million) are Induced from multiplier effects.

#### Total Economic Benefits for 1998: Sedona Airport

Table 1

Benefit Types	BENEFIT MEASURES		
	Gross Revenues	Earnings	Employment
Direct Benefits:			
On-Airport Activity	\$4,795,386	\$1,080,027	76
Airport Businesses			
FBO Services			
Aircraft Maintenance			
Administration			
Capital Projects			
Indirect Benefits:			
Air Visitors	1,578,148	356,871	28
Lodging			
Food/Drink			
Retail Goods/Services			
Entertainment			
Ground Transport			
Primary Benefits:			
Direct Benefits plus Indirect Benefits	6,373,534	1,436,898	104
Induced Benefits (Multiplier Effects)	5,793,526	1,024,327	81
<b>TOTAL BENEFITS</b>	<b>\$12,167,060</b>	<b>\$2,461,225</b>	<b>185</b>

### **3.1 Direct Benefits: On-Airport Activity**

---

There were eleven employers located on Sedona Airport in 1998, including the airport administration. combined with airport capital projects, these economic units created Direct Benefits of:

- **\$4.8 Million Gross Revenues**
- **\$1.1 Million Earnings**
- **76 On-Airport jobs**

An estimate of \$158,000 for capital projects during the year was derived by the airport administration from computation of a five-year average for capital improvements.

### **3.2 Indirect Benefits: General Aviation Travelers**

---

Visitors traveling for business or personal reasons, arriving in the region by general aviation aircraft, spent for lodging, food and drink, entertainment (such as golf and local attractions), retail goods and services, and ground transportation including auto rental and taxis. During 1998 there were 6,000 transient (visiting) general aviation aircraft and more than 15,000 air travelers that arrived at Sedona Airport.

General aviation travelers and other visitors created Indirect Benefits of:

- **\$1.6 Million Gross Revenues**
- **\$356,871 Earnings**
- **28 Jobs in the Hospitality Sector**

### **3.3 Primary Benefits: Combined Direct plus Indirect Benefits**

---

Combined Direct and Indirect Benefits summed to Primary Benefits of:

- **\$6.4 Million Gross Revenues**
- **\$1.4 Million Earnings**
- **104 Jobs**

These measures represent the "first round" revenues, earnings, and jobs in the Sedona Airport service area due to the presence of the airport. This economic activity would not have taken place without the airport, the aviation services provided there, and spending by users of these services.

### **3.4 Induced Benefits: Multiplier Effects**

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After the initial aviation dollars were spent in the airport service area by suppliers or users of aviation services, they continued to circulate in the region, creating additional or "induced" output, jobs and earnings. Arizona multipliers for six aviation related sectors (transportation, lodging, retail, eating places, entertainment, and construction) from the U. S. Department of Commerce were applied to estimate Induced Benefits.

The initial revenue stream of \$6.4 million created by the presence of Sedona Airport stimulated induced revenues in the airport service area of \$5.8 million, creating an additional 81 jobs with earnings of \$1.0 million.

### **3.5 Total Benefits**

The sum of Direct, Indirect and Induced Benefits is the Total Benefits of \$12.2 million gross revenues, \$2.5 million in earnings, and 185 jobs supported in the Sedona Airport service area.

### **4.0 Economic Benefits Detail**

This section provides more detail on the components of the benefits of Sedona Airport, including the Direct Benefits of on-airport operations, the Indirect Benefits from general aviation visitor spending, and the Induced Benefits due to multiplier effects.

#### **4.1 Direct Benefits: Airport Operations**

Table 2 illustrates the Direct Benefits from the annual operation of Sedona Airport. Data on revenues, employment and earnings were obtained from mail surveys and interviews conducted with airport tenants.

##### **4.1.1 Revenues From Private Employers**

On-airport tenants conducted private business operations creating gross revenues of \$4.2 million in 1998. There were 10 private employers on the airport during the 1998 study period providing goods and services.

Businesses on the airport include FBO services, aircraft fueling, flight training, pilot supplies, food services, aircraft tours, auto rental, and aircraft charter. In addition, there is a motel which serves general aviation travelers as well as others.

##### **4.1.2 Budgets of Government Agencies**

Because government agencies typically do not have revenue flows from sales of goods and services, the agency budget is used to measure the impact of spending flows on the service area economy. The only aviation-related government agency on Sedona Airport is the airport administration. An office of the Yavapai County Sheriff's Department is located on the airport, but employment and budget for this unit was not included as part of the overall impact of aviation.

##### **4.1.3 Capital Projects**

Capital projects are vital for airports to maintain safety and provide for growth. Capital spending for airport improvements also creates jobs and injects dollars into the local economy. The airport administration provided information that during the past five years, \$790,000 was invested in capital improvements at Sedona Airport. An annual average of \$158,000 was used to measure the influence of capital spending on economic benefits for 1998.

## Direct Benefits of Airport Operations: Sedona Airport

### Table 2

BENEFIT MEASURES			
Benefit Sources	Gross Revenues	Earnings	Employees
Airport Businesses			
FBO Services & Supplies	\$4,218,070	\$ 936,862	70
Aircraft Maintenance			
Food & Lodging			
Charters & Tours			
Auto Rental			
Airport Administration	\$ 419,316	\$79,965	2
Capital Projects	158,000	63,200	4
<b>DIRECT BENEFITS</b>	<b>\$4,795,386</b>	<b>\$1,080,027</b>	<b>76</b>
Source: Survey of airport employers, 1998.			

#### 4.1.4 Employment and Earnings

Surveys and interviews with aviation employers provided a tally of 70 private sector jobs on the airport. These private workers on the airport brought home annual earnings of \$936,862. With the addition of an annual average of 4 construction workers, the private employment on the airport was 74 workers in 1998 and earnings of \$1 million. The airport administration accounted for two additional employees, bringing total employment to 76 workers and payroll of \$1,080,027.

#### 4.1.5 Summary of Direct Benefits

On-airport activity at Sedona Airport created Direct Benefits of \$4.8 million in revenue flows associated with the presence of the airport. These revenues supported employment of 76 workers on the airport, with earnings of \$1.1 million. The private sector (business tenants and annual construction) accounts for 95 percent of revenue flows on the airport and 98 percent of employment. On-airport employers reported making purchases of goods, services, and utilities of \$2.1 million in 1998.

## 4.2 INDIRECT BENEFITS: AIR TRAVELERS

Sedona Airport attracts visitors from throughout the Western region and the nation who come to the area for both business and personal travel. This section provides detail on economic benefits from general aviation flyers who used the airport in 1998.

#### 4.2.1 General Aviation Visitors

Total transient GA arrivals were estimated as 6,000 aircraft for 1998. Some visitors stopped only briefly at the airport, some stayed for most of a day, and some stayed overnight. Overnight visitors represented 23 percent and day visitors made up 77 percent of the total transient GA aircraft arriving at Sedona Airport.

A questionnaire was administered to general aviation travelers to gather information on purpose of travel, length of stay, destination, and expenditures by category of spending for visitors. Separate analyses were conducted for those travelers who reported an overnight stay and those who visit for one day or less in duration.

#### 4.2.2 Overnight GA Visitors

The travel patterns underlying the calculation of overnight GA visitor economic benefits are shown in Table 3. There were 1,357 overnight aircraft at Sedona Airport during 1998. The average travel party was 2.8 persons, which yields 3,800 visitors arriving by general aviation aircraft. The average stay in the Sedona area was 2.9 nights. Multiplying the average length of stay of 2.9 by 3,800 visitors gives a total of 11,020 visitor days for those travelers who stayed overnight in the area.

Nearly three out of four travelers stated the purpose of their visit to the area was "tourism" (73%). Next in importance was "personal" travel (22%), followed by "business" (5%).

#### General Aviation Overnight Visitors: Sedona Airport

Table 3

Item	Annual Value
Overnight Transient AC	1,357
Average Party Size	2.8
Number of GA Visitors	3,800
Average Stay (nights)	2.9
Spending per Aircraft	\$1,009
<b>Total Expenditures</b>	<b>\$1,369,213</b>
Source: Visitor survey, 1998	

Nearly nine out of ten of travel parties (89%) listed the City of Sedona as the primary destination for their travel. Oak Creek accounted for 6 percent of travel, and 5 percent of visitors cited other destinations in the service area..

Each arriving overnight aircraft at Sedona Airport had an economic value of \$1,009 in spending. Multiplying \$1,009 per aircraft by 1,357 aircraft yields total overnight visitor revenues of \$1,369,213.

Detail on spending per overnight aircraft is shown in Table 4. The largest single spending category is lodging, which accounted for 36 cents of each visitor dollar and averaged \$365 per aircraft per trip. Total lodging outlays for the study period by overnight GA visitors exceeded \$495,000.

Lodging expenditures were made by nearly ninety percent of general aviation travelers, predominantly tourists. Those visitors traveling for personal reasons were often visiting friends and relatives. Many of these travelers reported no expenditures for lodging and, occasionally, food.

Ten percent of overnight general aviation travelers reported that they owned property in the area and some of these property owners stayed there during their visit.

Spending for food and drink accounted for 24 percent of the visitors' costs while in the Sedona Airport area. The average outlay for food and drink per aircraft was \$236, or \$29 per person per day during the trip.

The retail category tended to have the widest variations in reported spending by survey respondents. Business travelers often reported no outlays in this category, while several tourist travel parties reported spending as much as \$3,000 on retail (possibly works of art) during their stay in the service area.

#### Spending Per Overnight Aircraft: Sedona Airport

Table 4

Category	Spending	Percent
Lodging	\$365	36
Food/Drink	236	23
Retail	266	26
Entertainment	45	5
Transportation	97	10
<b>TOTAL</b>	<b>\$1,009</b>	<b>100</b>
Note: Expenditures per aircraft are for all survey respondents, including those who had no outlays for some of the categories shown.		
Source: Visitor survey 1998		

The average outlay per aircraft for retail spending was \$266 per trip or \$33 per person per day. The average spending on entertainment was lower, at \$45 per aircraft during the trip, and \$5.55 per person per day. Ground transportation (auto rental and taxi) accounted for 10 cents of each dollar spent by overnight visitors. Average ground transport spending per aircraft was \$97.

#### 4.2.3 General Aviation Day Visitors

According to tie down records maintained by the airport administration, more than three out of four transient general aviation visitors to Sedona Airport stayed in the service area for one day or less. In 1998, it is estimated that there were 4,643 aircraft that stopped at the airport for one day while the travel party pursued a personal activity or conducted business (Table 5).

The average travel party size was 2.5 persons and the number of visitor days created by one day aircraft was 11,610. These visitors spent an amount reported as \$18 per person per day, or an outlay for 2.5 persons per aircraft of \$45.

**General Aviation Day Visitors: Sedona Airport**

**Table 5**

Item	Annual Value
One Day Transient AC	4,643
Avg. Party Size	2.5
Number of GA Visitors	11,608
Average Stay (Days)	1
Spending per Aircraft	\$45
<b>Total Expenditures</b>	<b>\$208,935</b>
Source: Visitor survey, 1998	

The largest category of spending by one day visiting travel parties was food and drink, which, at \$25, accounted for more than one half of the total outlays (Table 6). Retail spending for goods and services for one day visitors was the second largest category, with outlays of \$10 per aircraft.

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**Spending Per Day Visitor Aircraft: Sedona Airport**


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**Table 6**

Category	Spending	Percent
Lodging	0	
Food/Drink	25	56
Retail	10	22
Entertainment	5	11
Transportation	5	11
<b>TOTAL</b>	<b>\$45</b>	<b>100</b>
Note: Expenditures per aircraft are for all survey respondents, including those who had no outlays for some of the categories shown.		
Source: Visitor survey 1998		

Sedona Airport records an average of 13 general aviation day visitor aircraft arriving each day of the year. The average daily impact from these travelers on the service area is \$585. General aviation day visitors spent \$208,935 in the Sedona Airport service area during 1998.

Comparing day visitor spending to overnight visitor spending, the overnight visitor total is six times that of the one day visitors, although there are three times as many one day aircraft. The two primary factors contributing to the much greater outlays for overnight visitors are (a) lodging expenses and (b) the 2.9 day length of stay for overnight visitors.

#### **4.2.4 Combined GA Visitor Benefits**

Table 7 shows the economic benefits resulting from spending in the region by combined overnight and day general aviation visitors arriving at Sedona Airport.

There were 1,357 arriving overnight general aviation aircraft and 4,643 one day aircraft in 1998. Each overnight travel party spent a reported average of \$1,009 during their trip to the Sedona Airport service area and travelers on each day visitor aircraft spent an estimated \$45 per trip.

**Indirect Benefits: Expenditures by General Aviation Visitors****Table 7**

Category	Number of Aircraft		Expenditures per Trip		Gross Revenues
	Overnight	Day	Overnight	Day	
Lodging	1,357		\$365		\$495,305
Food/Drink	1,357	4,643	236	\$25	436,327
Retail Sales	1,357	4,643	266	20	407,392
Entertainment	1,357	4,643	45	5	84,280
Ground Transport	1,357	4,643	97	5	154,844
<b>TOTAL</b>			<b>\$1,009</b>	<b>\$45</b>	<b>\$1,578,148</b>
Source: Derivd from Visitor Survey 1998					

Multiplying the expenditures for each category of spending by the number of aircraft yields the total outlays for lodging, food and drink, transportation, entertainment, and retail spending due to GA visitors during the year.

Gross revenues from air visitor spending on goods and services during 1998 summed to \$1,578,148. This figure is important in computing economic benefits since total spending supports jobs in the local economy. Moreover, sales and other taxes generated by visitors are based on total revenues.

There were a total of 20,630 visitor days attributable to the presence of Sedona Airport during the year. On an average day, there were 62 visitors in the survey area that had arrived via GA aircraft at the airport. Average daily spending by GA air travelers was \$4,324. The largest spending category was lodging, accounting for almost one half million dollars of revenues to service area eating and drinking establishments during the year. While expenditures for lodging made up thirty-one percent of the total GA visitor outlays during the 1998 study period, spending for food and drink was of nearly equal importance, accounting for 28 percent of visitor spending with a total amount of \$436,327.

#### **4.2.5 Earnings and Employment Benefits from GA Visitors**

Table 8 presents the Indirect Benefits of combined overnight and day GA visitor spending as measured by employment and earnings in the Sedona Airport service area.

## Indirect Benefits: Revenues, Earnings and Employment from GA Visitors

Table 8

Category	Gross Revenues	Earnings	Average Salary	Employment
Lodging	\$495,305	\$136,685	\$ 11,535	12
Food/Drink	436,327	109,082	10,571	10
Retail Sales	407,392	48,480	18,119	3
Entertainment	84,280	21,913	14,640	1
Ground Transport	154,844	38,711	19,624	2
<b>TOTAL</b>	<b>\$1,578,148</b>	<b>\$ 356,871</b>		<b>28</b>

Note: Earnings column derived from "percent to labor" data reported in *Census of Retail Trade* and *Census of Service Industries*, U. S. Department of Commerce. Percentages are lodging 28%; food service 25%; retail 12%; entertainment 26%; ground transport 25%. Salaries are from *County Business Patterns*, U. S. Census Bureau, 1995, converted to 1998 wage rates for Yavapai County. Employment is not necessarily full time equivalents; includes full and some part time workers, figures rounded to head counts

Of the gross revenues of \$1,578,148 created by GA visitors, an average of 23 cents of each dollar stayed in the local economy as earnings to employees (\$356,871) whose jobs were supported by this spending.

Based on average salaries as shown in Table 8 for each category of spending, an estimated 28 jobs in the Sedona Airport service area were related to GA visitor spending

The largest air traveler spending category, expenditures for lodging, supported 12 employees in hotel and motel establishments with annual earnings of \$136,685 for the year.

The second greatest number of workers were employed in eating and drinking places, where 10 jobs were due to the presence of general aviation travelers. The ground transportation sector had the highest salaries. (Salaries shown are averages for each sector, and include part time jobs as well as full time positions.)

Although retail sales expenditures exceeded four hundred thousand dollars, these outlays only supported 3 jobs. This is because retail products are typically produced outside the service area and only a small proportion of "margin" stays in the local economy. In contrast, services are produced and consumed locally.

## 5.0 BASED AIRCRAFT BENEFITS

A survey of owners of aircraft based at Sedona Airport was conducted to compile information on number and value of aircraft, annual expenditures and usage patterns, purpose of travel, average party size, and average distance flown per trip. Questions were also posed concerning the importance of the airport for residential location and businesses of flyers.

The average market value for the 103 aircraft based at Sedona Airport was \$109,000. The total value of all aircraft based at the airport was \$11.2 million (Table 9).

The combined distance logged on Sedona Airport based general aviation aircraft for personal and business travel summed to 3.8 million miles in 1998. The passenger miles, after accounting for party size, totaled 8.0 million.

An approximation of the dollar value of travel on based aircraft may be made by comparison with financial reports of scheduled air carriers, who report typical revenues per passenger mile in the range of 10 cents. Applying this value to passenger miles traveled on aircraft based at Sedona Airport, the "airline equivalent" value of travel is \$800,000.

This figure is an estimate, which does not include a measure of the economics gains such as those from business trips, which may have been substantial. Personal trips, such as those for medical reasons, often have high economic value as well. Further, the time saved by general aviation travel compared to automobile use or flying scheduled airlines is not calculated here, but certainly has economic significance.

**Based Aircraft Profile: Sedona Airport**

**Table 9**

Item	Value
Number of Aircraft	103
Total Market Value	\$11,227,000
Average Value	\$109,000
Total Annual Outlays	\$925,558
Average Annual Outlays	\$8,986
Source: Based aircraft owner survey, 1998	

It is important for citizens and policy makers to be aware that airports create significant *unmeasured* social and economic benefits for the regions which they serve. For example, convenient air transportation allows freedom for individuals to travel to satisfy their preferences for goods, services, and personal needs. Airports make the regional economy more competitive by providing businesses ready access to markets, materials and international commerce.

Airports also bring essential services to a community, including enhanced medical care (such as air ambulance service), support for law enforcement and fire control, and courier delivery of mail and freight. These services raise the quality of life for residents and maintain a competitive environment for economic development.

In addition to exerting a positive influence on economic development in general, aviation often reduces costs and increases efficiency in individual firms. Companies that operate general aviation aircraft typically record net income as a percent of sales approximately 50 percent greater than companies not utilizing such aircraft.

### **5.1 Importance Of Sedona Airport For Aircraft Owners**

The presence of the airport as a factor affecting the personal quality of life and business success of aircraft owners was measured by survey questions asking respondents to rate the airport as "very important, important, slightly important, or not important" to their residential location decision and their business. The survey results show that Sedona Airport is a significant factor in determining where aircraft owners live. Survey respondents derived benefits from having the airport nearby their residences and their places of employment.

An overwhelming proportion of aircraft owners (96 percent) said that Sedona Airport is "important" or "very important" to their residential location. Seventy-two percent rated the airport as "very important" to their residential location choice. Further, more than one half (57%) stated that the airport is "important or very important" to their business or place of employment.

Those who reported the airport as important to their business were also asked for information about their business, in order to provide some measure of the overall benefit of the airport to the business flyer. Firms represented by users of Sedona based aircraft for business purposes accounted for 285 employees in the service area, and the businesses of the combined respondents accounted for more than \$27 million of annual sales.

### **5.2 EXPENDITURES BY AIRCRAFT OWNERS**

A significant portion of the revenue created on the airport can be attributed to outlays by the owners of the 103 general aviation based aircraft for storage, maintenance, and operation of their aircraft throughout the year.

Owners reported expenditures averaging \$8,986 per year on repairs, maintenance and operations. Using these values, the total spending created in the region due to outlays by aircraft owners can be estimated as \$925,558 in 1998. (Note that annual expenses for individual aircraft can vary greatly, depending on the size, technical specifications, and hours flown.)

### Based Aircraft Use Patterns: Sedona Airport

Table 10

Type	Annual Trips
Average Number of Trips	54
Average Business Trips	28
Average Personal Trips	26
Percent Business Trips	52%
Percent Personal Trips	48%
Source: Based aircraft owner survey, 1998	

### 5.3 Based Aircraft Travel Patterns

Sedona based general aviation aircraft owners reported an average of 54 non-training trips per year, which is a frequency of use of 4.5 trips per month. Fifty-two percent of general aviation trips (28 trips per year) were for business purposes and forty-eight percent of trips (26 per year) were for personal travel (Table 10).

#### 5.3.1 Based Aircraft Personal Travel

The typical round trip for pleasure, recreation or other personal reasons was 598 miles, with 2.2 persons in the travel party (Table 11). There were an estimated 2,690 trips for personal reasons during the year.

Aircraft at Sedona Airport flew 1.6 million miles for personal reasons in 1998. Total non-business passenger miles flown during the year summed to 3.5 million.

**Based Aircraft Personal Use: Sedona Airport****Table 11**

<b>Item</b>	<b>Annual Value</b>
Average Annual Personal Trips	26
Total Personal Trips	2,690
Average Party Size	2.2
Average Round Trip Miles	598
Total Personal Miles	1,607,783
<b>Personal Passenger Miles</b>	<b>3,530,131</b>
Source: Based aircraft owner survey, 1998	

**5.3.2 Based Aircraft Business Travel**

The typical business use for a general aviation aircraft was a journey of 756 miles round trip with 2.0 persons in the travel party (Table 12). There were an estimated 2,859 business trips made from Sedona Airport during the year.

Sedona based aircraft flew 2,162,655 business miles in 1998. With an average travel party of 2.0 persons, passenger miles flown on business trips originating at Sedona Airport summed to 4,415,421.

**Based Aircraft Business Use: Sedona Airport****Table 12**

<b>Item</b>	<b>Annual Value</b>
Average Annual Business Trips	26
Total Business Trips	2,859
Average Party Size	2.0
Average Round Trip Miles	756
Total Business Miles	2,162,655
<b>Business Passenger Miles</b>	<b>4,415,421</b>
Source: Based aircraft owner survey, 1998	

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## 6.0 TAX BENEFITS

Because of the flow of spending created by the presence of Sedona Airport, the facility is an important source of public revenues. (Tax revenues are in addition to various fees paid by aircraft owners and other users of the airport.) Estimated tax potential is set out in Table 13. The table shows the revenues for each tax category that could potentially be collected based on average ratios provided by the Joint Legislative Budget Committee and the Arizona Department of Revenue.

The 76 on-airport workers earned \$1.1 million in 1998. Personal income taxes on that amount are \$23,761. Sales taxes are the largest component of tax collections from individuals, followed by property taxes. Business taxes include all excise and other taxes paid by employers on the airport. These collections were estimated as exceeding \$263,000. Total state and local tax revenue potential from on-airport economic activity was \$405,565 for 1998.

The "Total Benefits" columns shows potential tax revenues based on all sources, including Direct Benefits of on-airport activity, Indirect Benefits from visitor spending, and Induced Benefits from multiplier effects. Total tax revenue potential for this broader measure was \$1.0 million. Taxes from all businesses whose economic activity is supported in some way by the presence of the airport were more than \$669,000 in 1998. Sales taxes paid by the 185 persons whose jobs were supported by the presence of Sedona Airport were \$139,330.

In addition, as shown in the table, visitors to the Sedona area pay sales taxes on purchases of goods and services and also pay lodging taxes. Lodging tax revenues paid by general aviation travelers were \$56,960. All other sales taxes on visitor spending at 8.5% amounted to \$92,402 for the year, with total visitor taxes of \$149,002.

**Tax Revenue Potential from Aviation: Sedona Airport****Table 13**

<b>Sources</b>	<b>On Airport Benefits</b>	<b>Total Benefits</b>
<b>Employees</b>	76	185
<b>Earnings</b>	\$1,080,027	\$2,461,225
<b>Personal Income Taxes</b>	23,761	54,147
<b>Sales Taxes</b>	61,195	139,330
<b>Fuel Taxes</b>	9,120	22,200
<b>Property Taxes</b>	47,743	116,217
<b>Business Taxes</b>	263,746	669,188
<b>Total Taxes</b>	<b>\$405,565</b>	<b>\$1,001,082</b>
<b>Visitor Spending</b>		
<b>Lodging</b>	56,960	
<b>All Other</b>	92,042	
<b>Total From Visitors</b>	<b>\$149,002</b>	
Source: Based on information from Joint Legislative Budget Committee and Arizona Department of Revenue, 1998.		

**7.0 SUMMARY AND FUTURE IMPACTS**

Airports are available to serve the flying public every day of the year. On a typical day at Sedona Airport, there are more than 100 operations by aircraft in use for business, recreation, and training flights. During each day of the year in 1998, Sedona Airport generated \$33,334 gross revenues within its service area (see box). Revenues and production support jobs, not only for the suppliers and users of aviation services, but throughout the economy. Each day Sedona Airport provides 76 jobs directly on the airport and in total supports 185 local jobs in the airport service area. These workers brought home daily earnings of \$6,743 for spending in the community in 1998.

## Daily Economic Benefits

- \$33,334 Gross Revenues
- 185 Local Jobs Supported
- \$6,743 Payroll Earned
- \$4,324 Visitor Spending
- 62 General Aviation Visitors

General aviation travelers who arrived at Sedona Airport contributed 22,630 visitor days of spending to the economy. On an average day there were 62 general aviation visitors in the service area, with average daily expenditures of \$4,324.

Table 14 shows a summary of economic benefits associated with Sedona Airport in 1998. The presence of the airport creates Primary Benefits (on-airport and off-airport impacts without any multiplier effects) of \$6.4 million of gross revenues, \$1.4 million in earnings, and 104 jobs for workers. Allowing for all multiplier effects, the airport is the source of \$12.2 million in gross revenues, with 185 workers supported who bring home earnings of \$2.5 million.

### Summary of Economic Benefits: Sedona Airport

Table 14

Category	Gross Revenues	Earnings	Employment
Airport Operations	\$4,637,386	\$1,016,827	72
Capital Projects	158,000	63,200	4
Air Visitors	1,578,148	356,871	28
<i>Primary Benefits</i>	<i>\$6,373,534</i>	<i>\$1,436,898</i>	<i>104</i>
Multiplier Benefits	5,793,526	1,024,328	81
<b>Total Benefits</b>	<b>\$12,167,060</b>	<b>\$2,461,225</b>	<b>185</b>
Note: Revenues, earnings and employment for 1998 reflect activity and spending associated with 40,897 operations.			

As aviation activity increases at the airport, the economic benefits may be expected to increase. The projections of future benefits shown here are based on an assumption that higher levels of airport operations will cause parallel increases in economic activity. The projections for "Short Term" "Intermediate Term" and "Long Term" are related to forecasts from the Sedona Airport Master Plan as developed in 1999.

Estimated future benefits of the airport in the short term are based on growth of operations from the current level of 40,897 to 47,244 by the year 2002 (Table 15). Assuming commerce on the airport and in the community increases at the same pace, employment on the airport will increase to 84 workers.

Increases in GA visitors will cause higher employment in the hospitality sector. Jobs related to air visitors will increase to 33 and visitor spending will rise to \$1.8 million (measured in 1998 dollars). The Primary Benefits of the airport, as measured by gross revenues, will increase to \$7.2 million. Including all multiplier effects, the Total Benefits rise to \$13.8 million of gross revenues.

### Projections of Short Term Economic Benefits (\$1998): Sedona Airport

Table 15

Category	Gross Revenues	Earnings	Employment
Airport Operations	\$5,379,368	\$1,179,519	84
Air Visitors	1,830,652	413,970	33
<i>Primary Benefits</i>	<i>\$7,210,019</i>	<i>\$ 1,593,489</i>	<i>117</i>
Multiplier Benefits	6,553,889	1,135,958	89
<b>Total Benefits</b>	<b>\$13,763,908</b>	<b>\$2,729,447</b>	<b>206</b>
Note: Revenues, earnings and employment for Short Term are based on activity and spending associated with 47,244 operations as projected for 2002 in the Master Plan.			

The benefits for the Intermediate Term are based on 50,816 operations (Table 16). The revenues of on-airport employers rise to \$5.8 million, and the number of workers increases to 90. Visitor spending is \$2.0 million, which brings Primary Benefits of \$7.8 million of gross revenues, without multiplier effects. Including all multiplier effects, gross revenues rise to \$14.9 million and the airport supports 223 jobs.

### Projections of Intermediate Term Economic Benefits (\$1998): Sedona Airport

Table 16

Category	Gross Revenues	Earnings	Employment
Airport Operations	\$5,809,717	\$1,273,881	90
Air Visitors	1,977,104	447,087	36
<i>Primary Benefits</i>	<i>\$7,786,821</i>	<i>\$ 1,720,968</i>	<i>126</i>
Multiplier Benefits	7,078,200	1,226,835	97
<b>Total Benefits</b>	<b>\$14,865,021</b>	<b>\$2,947,803</b>	<b>223</b>
Note: Revenues, earnings and employment for Intermediate Term are based on activity and spending associated with 50,816 operations as projected for 2007 in the Master Plan.			

The projected benefits for the Long Term planning horizon, for the year 2017, are based on 61,932 operations (Table 17). At this scope of activity, the airport has potential Primary Benefits of \$9.5 million in gross revenues. Accounting for all multiplier effects, gross revenues rise to \$18.1 million, and the number of jobs supported in the Sedona Airport service area under the Long Term assumptions total 272.

### Projections of Long Term Economic Benefits (\$1998): Sedona Airport

Table 17

Category	Gross Revenues	Earnings	Employment
Airport Operations	\$7,087,855	\$1,554,135	110
Air Visitors	2,412,067	545,447	44
<i>Primary Benefits</i>	<i>\$9,499,922</i>	<i>\$2,099,581</i>	<i>154</i>
Multiplier Benefits	8,635,404	1,496,738	118
<b>Total Benefits</b>	<b>\$18,135,326</b>	<b>\$3,596,320</b>	<b>272</b>
Note: Revenues, earnings and employment for Long Term are based on activity and spending associated with 61,932 operations as projected for 2017 in the Master Plan.			

## **APPENDIX**

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### **SEDONA AIRPORT ECONOMIC BENEFIT STUDY**

### ***SURVEY FORMS***

## SEDONA AIRPORT ECONOMIC BENEFIT STUDY

### To All Airport Employers and Tenants:

An Economic Benefit Study for Sedona Airport will be included as part of the Master Plan now being prepared. Your cooperation is very much needed to compile meaningful economic data about the airport. This survey of employers will be handled with the **strictest confidentiality** by an independent consultant and only aggregate numbers will be used in publishing the data. If you have questions about the survey, please call Austin Wiswell, Sedona Airport Administration, at 282-4487. **Please return the survey form in the postage paid return envelope within ten days.**

1. Please describe your **main business activity** (restaurant, aircraft maintenance, etc.)

Type of business: \_\_\_\_\_

2. How many **employees** do you have on the payroll at this time? Full Time \_\_\_\_\_  
Part Time \_\_\_\_\_

3. Please estimate your **annual payroll** \$ \_\_\_\_\_

4. Please estimate your **annual operating costs** (do not include payroll but do include **cost of utilities, goods and services**) \$ \_\_\_\_\_

5. Please estimate **annual total sales** for your business

a. EITHER indicate amount if you can release it \$ \_\_\_\_\_

b. OR mark appropriate range on scale below

0    25    50    75    100    200    400    500    750    1    2    5    10  
(\$ Thousands)    (\$ Millions)

6. What **percentage** of your total sales consists of **taxable sales**? \_\_\_\_\_%

**Thank you for your cooperation!**

## SEDONA AIRPORT BASED AIRCRAFT SURVEY

### **Dear Aircraft Owner:**

*An Economic Benefit Study for Sedona Airport will be included as part of the Master Plan now being prepared. Your cooperation is very much needed to compile meaningful economic data about the airport. This survey of aircraft owners will be handled with the **strictest confidentiality** by an independent consultant and only aggregate numbers will be used in publishing the data. If you have questions about the survey, please call Austin Wiswell, Sedona Airport Administration, at 282-4487. **Please return the survey form in the postage paid return envelope within ten days.***

1. How many aircraft do you have based at Sedona Airport? \_\_\_\_\_
2. Please estimate the market value of your aircraft. \_\_\_\_\_
3. Please estimate your annual outlays for fuel, maintenance, insurance, storage and other expenses associated with your aircraft. \_\_\_\_\_
4. Please estimate the annual number of (non- training) trips in your aircraft.  
                                 Business \_\_\_\_\_ Personal \_\_\_\_\_
5. Please estimate average ROUND TRIP MILEAGE for a typical (non-training) trip.  
                                 Business \_\_\_\_\_ Personal \_\_\_\_\_
6. What was the average number of persons on a typical trip?  
                                 Business \_\_\_\_\_ Personal \_\_\_\_\_
7. Considering the location of your personal residence, how important is the airport as a factor determining where you have decided to live?  
                                 Very Important \_\_\_\_ Important \_\_\_\_ Slightly Important \_\_\_\_ Not Important \_\_\_\_
8. Considering your business or employment, how important is the airport as a factor determining the location, operation and success of this business?  
                                 Very Important \_\_\_\_ Important \_\_\_\_ Slightly Important \_\_\_\_ Not Important \_\_\_\_
9. If the airport is important to your business or employment, please provide the information below:  
                                 Number of Employees at Your Business \_\_\_\_\_ Annual Sales \_\_\_\_\_

***Thank you for your cooperation!***

# SEDONA AIRPORT GA VISITOR SURVEY

**Dear Aircraft Owner:**

Your aircraft appears on our listing of visitors to Sedona Airport during the past year. We are asking your assistance in completion of this **confidential** questionnaire to measure the economic benefits from spending by GA visitors. The information will help us improve services for General Aviation travelers. If you have questions about the survey, please call Austin Wiswell, Sedona Airport Administration, at (520) 282-4487. **Please return the survey form in the enclosed envelope within ten days.**

1. What was the main **purpose** of your most recent visit to the Sedona area?

Fuel stop only \_\_\_\_\_ Business trip \_\_\_\_\_ Tourism/sightseeing \_\_\_\_\_ Personal/family visit \_\_\_\_\_

2. How many **people** were in your travel party? Circle : 1 2 3 4 or more (specify) \_\_\_\_\_

3. Where was your **primary destination** while in the area? Did not leave airport \_\_\_\_\_

City of Sedona \_\_\_\_\_ Oak Creek \_\_\_\_\_ Other (specify) \_\_\_\_\_

4. Did you stay at a home or property you own in the area? Yes \_\_\_\_\_ No \_\_\_\_\_

5. How many **nights** was your aircraft parked at Sedona Airport?

Circle: None (day trip) 1 2 3 4 or more (specify) \_\_\_\_\_

6. Please estimate **spending by your ENTIRE TRAVEL PARTY** on your visit to the Sedona area. Do not include expenditures for aircraft fuel or FBO services. Please circle the closest figure.

**Hotel/Lodging:**

None \$50 75 100 125 150 200 300 400 500 600 700 800 or more (specify) \_\_\_\_\_

**Restaurant Food and Drink:**

None \$10 25 50 75 100 125 150 175 200 300 400 500 600 or more (specify) \_\_\_\_\_

**Retail Spending for Goods and Services (include groceries but not entertainment)**

None \$10 25 50 75 100 125 150 175 200 300 400 500 600 or more (specify) \_\_\_\_\_

**Entertainment (Golf, Movies, etc.):**

None \$10 25 50 75 100 125 150 175 200 300 400 500 600 or more (specify) \_\_\_\_\_

**Ground Transportation Including Auto Rental:**

None \$10 25 50 75 100 125 150 175 200 300 400 500 600 or more (specify) \_\_\_\_\_

**Thank you for your cooperation!**